SEZAM

USER'S MANUAL

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This document is applicable to SEZAM Version 3.1.2 and to all subsequent releases, unless otherwise indicated in new editions or technical newsletters.

Specifications contained herein are subject to change and these changes will be reported in subsequent revisions or editions.

Readers' comments are welcome. Comments may be directed to:

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SEZAM USER´S MANUAL

1. Overview

SEZAM is an interactive menu-driven database management system for the ADABAS and NATURAL.

SEZAM comprises the components shown in Figure 1-1.

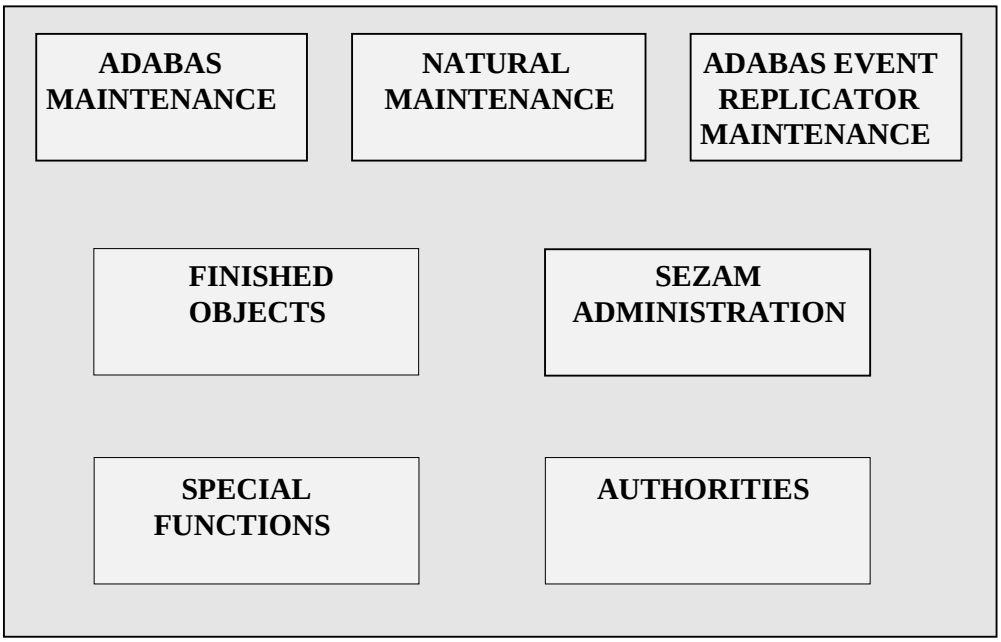

Figure 1-1: SEZAM Components

Briefly, the components are:

* **ADABAS MAINTENANCE**: performs ADABAS Utilities.

* **ADABAS EVENT REPLICATOR MAINTENANCE**: performs ADABAS Event Replicator Utilities.

* **NATURAL MAINTENANCE**: performs NATURAL Utilities, NATURAL System Commands and NATURAL User Programs.

* **FINISHED OBJECTS**: operates with already prepared jobs, or patterns.

* **SEZAM ADMINISTRATION**: performs SEZAM administration functions, i.e. user creation, environment definitions, saved jobs processing, threshold setting etc. For more information consult the *SEZAM Administration Manual.*

* **SPECIAL FUNCTIONS**: auxiliary SEZAM features.

* **AUTHORITIES**: displays autorisation settings of the SEZAM user.

2. What is SEZAM?

SEZAM is the Database Administrator (DBA) tool for the monitoring and changing of ADABAS databases by performing the standard set of ADABAS/NATURAL utilities.

With the help of SEZAM you can generate and execute JCL / REXX for ADABAS NATURAL utilities and NATURAL system commands. SEZAM gives you a menu-based alternative for performing the most common DBA tasks. You can navigate through SEZAM using direct commands or menus. Some of SEZAM functions can be granted to non-DBA users to ensure them the possibility to execute a part of ADABAS/NATURAL utilities, NATURAL system commands and NATURAL programs in batch.

SEZAM is written in NATURAL, Software AG´s fourth generation application development facility.

3. What You Can Do with SEZAM?

An overview of the main SEZAM functions is shown on the Figure 3-1. Using SEZAM, you can select and perform these functions interactively.

Main SEZAM functions includes:

* Job generation and execution for ADABAS and ADABAS Event Replicator utilities. Set of ADABAS utilities depends on user type. For information about SEZAM users consult the *SEZAM Administration Manual*.

* Job generation and execution for NATURAL utilities, system commands and user programs. Set of NATURAL utilities and system commands depends on user type.

* Operating with already generated jobs or with jobs from SEZAM Saved Jobs Area. For information about SEZAM finished jobs consult the section *Finished Objects.*

* Maintenance of SEZAM system objects. For information about SEZAM users, database environments, parameter's lists, history subsystem, saved jobs and translation tables consult *SEZAM Administration Manual.*

* Processing of SEZAM utilities. For information about SEZAM utilities consult the *SEZAM Utilities Manual.*

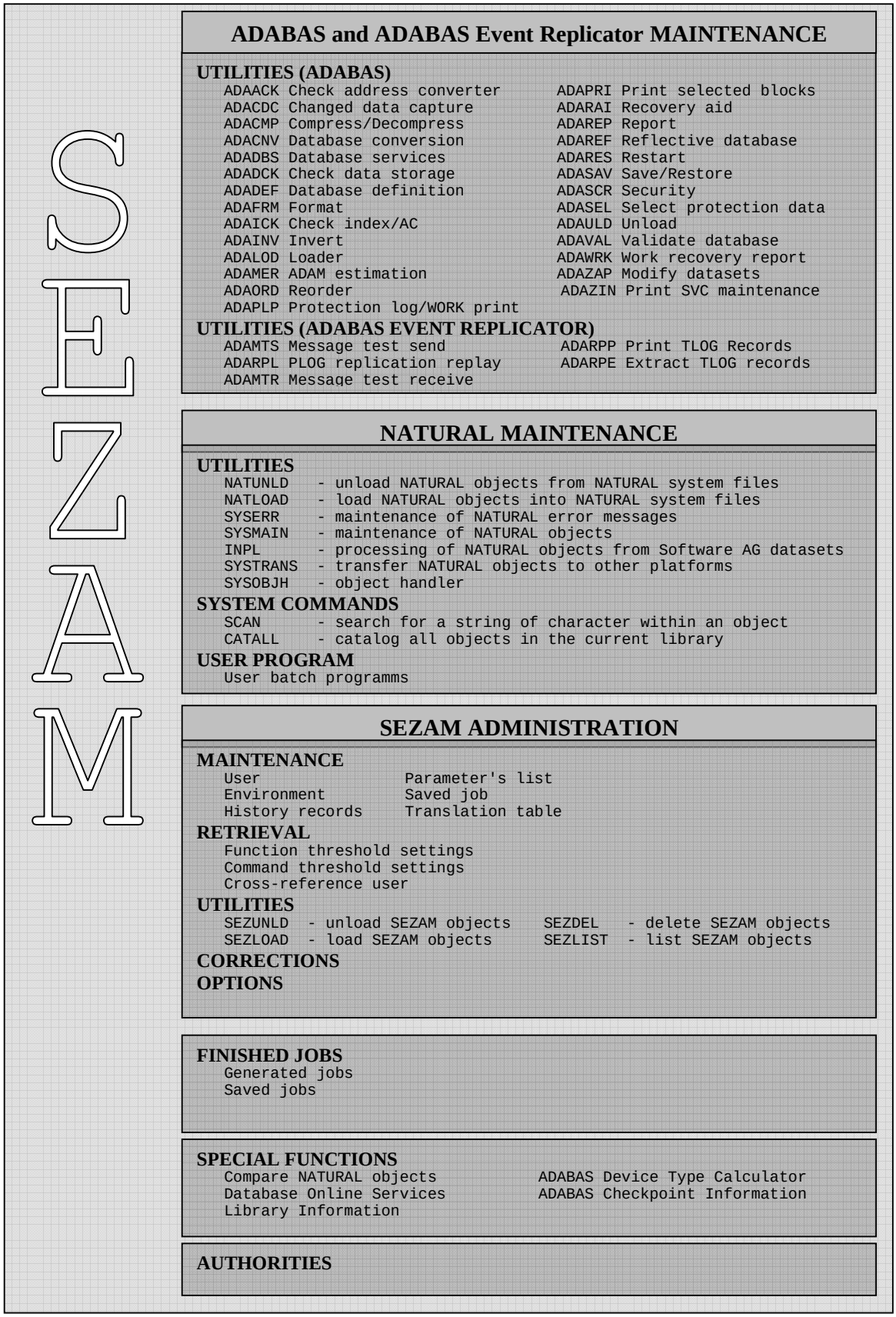

Figure 3-1: Overview of SEZAM functions

Set of available SEZAM functions depends on user type. In Figure 3-1 are shown SEZAM functions for the user type A(ADMINISTRATOR).

The detailed lists of the functions available for the users different from ADMINISTRATOR are represented in the *ADABAS Maintenance* and *NATURAL Maintenance* sections in this manual.

4. Concepts and Terminology of SEZAM

Goals of SEZAM

SEZAM is designed to meet the following requirements:

* Easy to install: SEZAM requires only an hour to install

* Easy to use: once SEZAM is invoked, DBA selects a ADABAS/NATURAL utility and provides the required set of parameters which can be used more than once

* Getting help: SEZAM provides help information on every screen. On-line help is the very best first choice when questions or problems occur

* High degree of flexibility: an internal mechanism of modifying the sequence of statements by the job generation makes it possible to generate the JCL/REXX for every known mainframe operating system

* Open system: the generated job can be modified by the user if the need arises

* Access control: SEZAM has a comprehensive system to control and check a database environment access via SEZAM functions. SEZAM enables a high grade of protection against an unauthorised access and improper use

Environment

The central subject within the concepts of SEZAM is *environment*.

Most of ADABAS/NATURAL users operate with different environments which are ADABAS databases containing different NATURAL system files. Typically, a commercial computer system has environments for the following purposes:

* Production

* Application development

* System test

There are many different ways of establishing a test and production environments with ADABAS and NATURAL. Usually, there is one database per environment, each with one NATURAL system file. These would be considered to be distinct environments. It is also possible to use the same database with the same NATURAL system files from different TP-systems (e.g., TSO and CICS). These are considered to be one environment.

Every database environment must be defined in SEZAM. SEZAM has a built-in subsystem which allows creation, modification and delete of environments. There is no restriction on the number of environments.

For more information about SEZAM environments refer to *SEZAM Administartion Manual.*

Users

To be able to use SEZAM the user must be registered in the system. SEZAM has a built-in subsystem for create, modify and delete users.

Users may be defined as one of the following types:

* A(ADMINISTRATOR)

* M(MANAGER)

* E(EXPERT)

* P(PERSON)

Every user type has its own set of the pre-defined SEZAM functions, ADABAS/NATURAL utilities and NATURAL system commands:

* ADMINISTRATOR has authorities:
  - to execute the SEZAM administration functions
  - to operate in the all available database environments
  - to perform the full set of the ADABAS/NATURAL functions

  This user type should be assigned to DBAs and SEZAM system administrators

* MANAGER has authorities:
  - to operate in those environments where the ADMINISTRATOR has that allowed
  - to perform the comparatively wide set of the ADABAS/NATURAL functions.

  This the user type is for the people responsible for the system maintenance only of the certain databases.

* EXPERT has authorities:
  - to operate in those environments where ADMINISTRATOR has that allowed
  - to perform the set of the ADABAS/NATURAL functions only with up to 50 ADABAS files. The set of the allowed functions is not so wide as for the MANAGER.

  This user type is designed for the experienced NATURAL developers.

* PERSON has authorities:
  - to operate in those environments where ADMINISTRATOR has that allowed

- to perform the set of the ADABAS/NATURAL functions only with up to 50 ADABAS files. The set of functions is less than the same set for the EXPERT.

This is the default user type which will apply to the most people.

To provide the possibility for the single user to operate in more than one environment, user has to be registered in every environment where he is going to work. For example, the user can be defined in one environment as a MANAGER and in the other as a PERSON. The only exception is the user type ADMINISTRATOR which has to be defined only once.

For more information about SEZAM users refer to *SEZAM Administartion Manual.*

History Records

SEZAM history subsystem supplies monitoring and accounting data for certain events within SEZAM. This data is accumulated in the history records and can be used to retrieve the information about the flow of job's submission. The history subsystem can be accommodated to the real needs of the customer so that the history records contain not only the brief information about the utility and the files being affected, but also include the complete JCL/REXX.

Parameter’s Lists

SEZAM provides the opportunity to execute a wide range of ADABAS/NATURAL functions (Fig. 3-1), i.e. ADABAS/NATURAL utilities, NATURAL system commands etc. Every function needs the certain number of required and optional parameters. This set of parameters is called the *parameter’s list.*

Some of ADABAS/NATURAL functions need the relatively large set of the consistent parameters. These parameters must be entered in accordance with ADABAS/NATURAL specific rules. The time needed for parameter’s customizing can be sometimes comparable with the duration of the execution.

SEZAM supports the possibility to use the parameter’s list more than once. This significant reduces the time needed for ADABAS/NATURAL parameter’s customizing.

Every user has his own set of parameter’s lists. The number of parameter’s lists per user is unlimited. The user can operate only with his own parameter’s lists.

For more information about SEZAM parameter's lists refer to *SEZAM Administartion Manual.*

Saved Job

SEZAM provides the possibility to save commonly used jobs in a separate area of SEZAM system file. It allows to increase the performance by reducing the number of total execution of GN(GENERATE JCL) command.

Every saved job can be executed directly from SEZAM saved area. The use of saved jobs can be restricted by the date/time of the execution and/or by people authorized to execute it.
DBA can find it very comfortable to grant the permission to execute of some ADABAS/NATURAL utilities to the users who normally are not authorized for it.

Translation Table

Translation table is a list of 'Translate From' magic words which are dynamically searched and replaced with 'Translate To' samples in the execution time.

This facility can be activated for sensitive information presence of which in JCL/REXX violates the security, for example, user's passwords etc.

Each user can have one global and one local transaction table per database environment. During submitting of the job the translation mechanism will be activated and the local and global translation tables are searched. The entries defined in the global table will be active only if the local table is not defined.

5. How to Operate SEZAM?

SEZAM contains menus of functions, which depend on user type. All menus shown in this manual are available on the level of user type ADMINISTRATOR. The menus for MANAGER, EXPERT and PERSON provide less functionality.

To access SEZAM, logon to the NATURAL application, which steplib includes SYSSEZ library and enter SEZAM at the NEXT prompt.

SEZAM provides the logon procedure which realizes the following principle: every user gets the maximum authorization from the available. For example, the user is defined more than once: in the first environment - as a P(Person), in the second - as a M(Manager) and in the third - as an E(Expert). The maximum authorization for this user can be achieved on the level of Manager. So such user is identified as the Manager.

There is no difference between the introductory screens for Administrator and non-Administrator users (Fig. 5-1, 5-2).

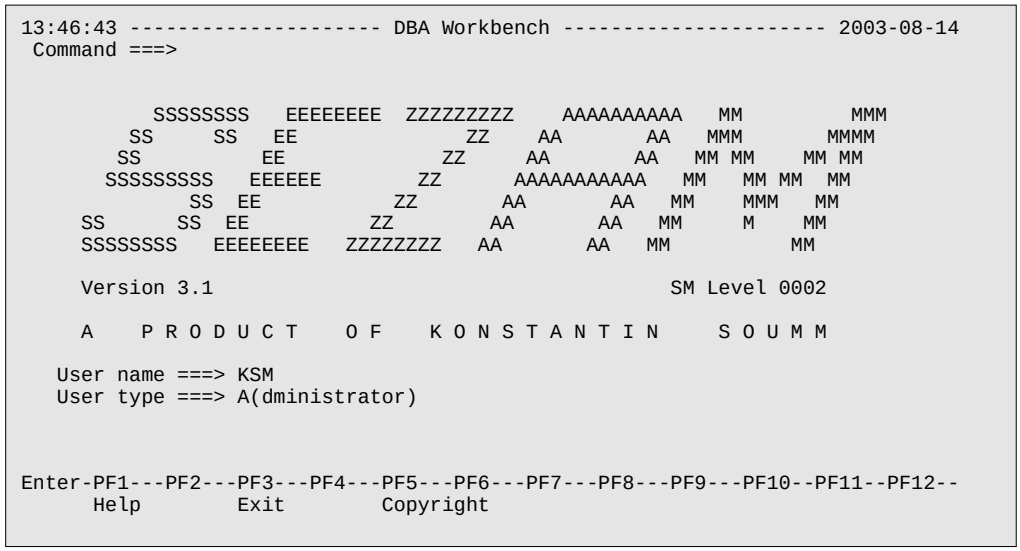

Figure 5-1: Administrator Introductory Screen

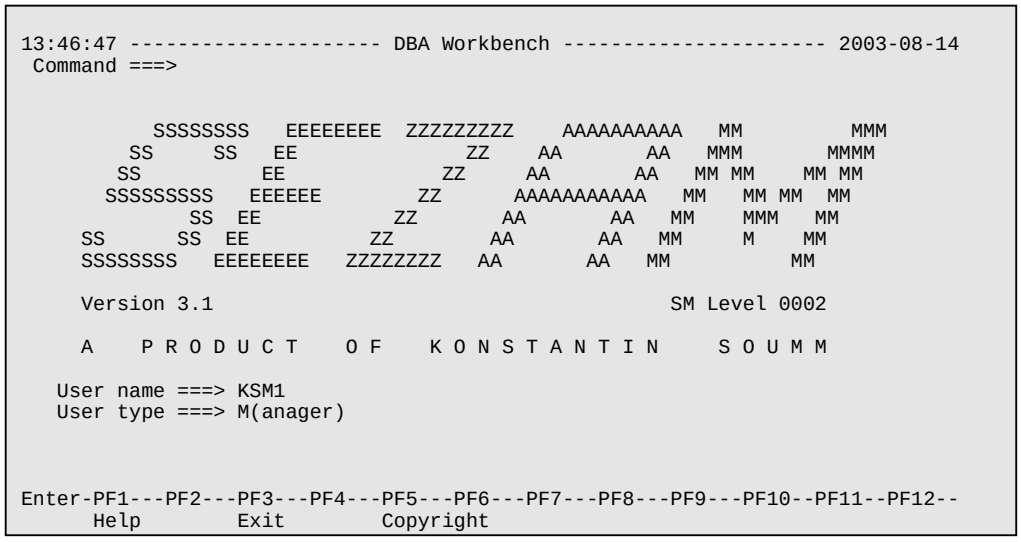

Figure 5-2: Manager Introductory Screen

When the introductory screen appears (Fig. 5-1), press ENTER to display the Administrator Startup Menu. The Administrator Startup Menu, shown in Figure 5-3, displays the major SEZAM functions.

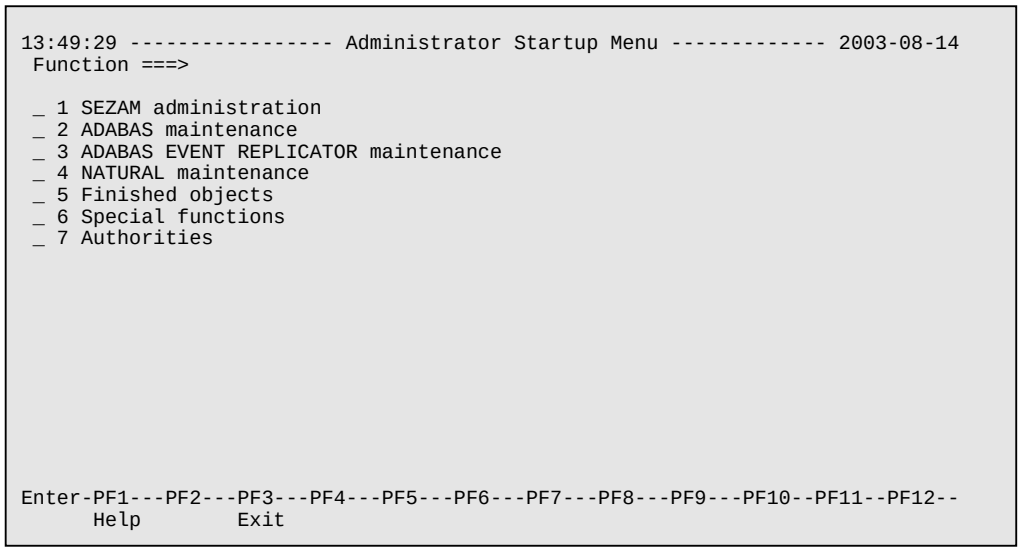

Figure 5-3: Administrator Startup menu

SEZAM issues a message confirming each completed function. If an error occurs, a message appears describing the error. Before doing any error analysis, try reviewing the help information („?“ or PF1) for the last step you performed to see if any requirements were overlooked; then retry the operation. For information about SEZAM Messages refer *SEZAM Messages Manual.*

Subsequent sections in this manual describe the major SEZAM functions and menu/screen structures in the order they appear on the Administrator Startup Menu.

SEZAM Screens

Most of SEZAM screens have one of the following formats:

* SEZAM MENU SCREENS re-present a selection list of possible functions. The screens are cursor sensitive. The user selects the function using cursor, or by entering the corresponding number in the „Function“ field at the top of the screen. Example of menu is shown in Figure 5-3.

* SEZAM FUNCTIONAL SCREENS serve for performing of SEZAM functions.
  The SEZAM Command should be entered in the „Command“ field. Example of functional screen is shown in Figure 5-4.

* SEZAM HELP SCREENS contain the help information. Example of help screen is shown in Figure 5-5.

```
13:55:07 ---------------- Unload / ADAULD(UNLOAD) ----------------- 2003-08-14
 Command ===>

 CM - Command help
.............................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> ________________________       Job name ===> DUMMY_
.............................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   File/Password ===> _____ / ________            Savetape  ===> _______
   Numrec        ===> __________                  Plognum   ===> _____
   DDisn         ===> _                           Syn1/Syn4 ===> _____ / _____
   Sortseq       ===> ________________________    Tempsize  ===> __________
   Startisn      ===> __________                  Tempdev   ===> ____
   Selcrit       ===> ________________________
   Selval        ===> ________________________
   Numout        ===> 1
   Test          ===> N
   Nouserabend   ===> N

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults          AddOp                        Alloc
```

Figure 5-4: ADAULD(UNLOAD) Functional Screen

```
13:55:41 ---------------- Unload / ADAULD(UNLOAD) ----------------- 2003-08-14
 Job name          - name of natural object to be saved, submitted or edited
 Environment       - DB environment where ADABAS utility is to be processed
 AdarunMode        - the ADABAS mode of operation to be used (MULTI/SINGLE)
 File              - the number of the file to be unloaded
 Password          - file sequrity password
 Numrec            - number of records to be unloaded
 DDisn             - specify 'Y' to write the list of unloaded ISNs to the
                     sequential output file DD/ISN (>ADABAS 7.1)
 Sortseq           - the sorting sequence for the unloaded ISNs:
                     descriptor-name / ISN
 Startisn          - is used with the SORTSEQ and SELCRIT/SELVAL parameters
                     to restrict the unloaded records according to ISN
 Selcrit           - selection criterion to restrict the unloaded records to
                     those which meet the selection criterion provided:
                     'AA,20,A,D,AB,10,A' - the search buffer syntax
 Selval            - the values corresponding to the selection criteria
                     specified with the SELCRIT parameter:
                     'PARIS ' / X'00f33'
 Numout            - the number of output files to be produced. If greater
                     than one, user exit 9 must be used to control OUT1/2
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
                 Exit                         Next
```

Figure 5-5: ADAULD(UNLOAD) Help Screen

Entering Commands

SEZAM commands can be entered on the functional screens. The following commands can be issued:

Command	Description
CL	Browse available command’s list
CD	Browse available direct command’s list
CM	Show command’s help information
ID	Show user authority
SA	Save/update parameter’s list
BR	Browse parameter’s list
DE	Delete parameter’s list
EX	Generate and execute the job immediately
GN	Generate and save the job
ED	Edit the generated job
SU	Submit the generated job
LI	Show the list of generated jobs
?	Show help information

Other commands can be available on some different screens. To receive the information about the available commands use the CM(COMMAND HELP) command (Fig. 5-6).

```
14:01:05 ------------------------ Commands ------------------------ 2003-08-14
Parameter list maintenance:
 SA/BR/DE - save/browse/delete parameter list
Job generation maintenance:
 EX    - generate job and execute immediately
 GN    - generate job in natural object, specified by JOBNAME parameter
 ED    - edit already generated job, specified by JOBNAME parameter
 SU    - submit already generated job from natural object, specified by
         JOBNAME parameter
 LI    - browse already generated job (specified by JOBNAME parameter),
         or browse the list of all already generated jobs (parameter JOBNAME
         is empty)
Others:
 CL/CD - available command's/global direct command's list
 ID    - browse authorization of the current user in the specified env.
PF-Keys:
 PF1   - help
 PF3   - processing termination
 PF4   - default values
 PF7   - additional parameters for the ADABAS utility
 PF12  - JCL requirements processing
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
                  Exit
```

Figure 5-6: Available Commands Screen

Once you are familiar with SEZAM and know how to find your way from menu to menu, from function to function, you may also be interested in a faster and more flexible way of handling SEZAM: instead of having to fastidiously „walk“ from one menu to another, you may also „jump“ directly to the function you want. This is done by using *direct commands*.

You may enter a direct command on every SEZAM screen which provides a command or function line:

Command **===>**

Function **===>**

Each direct command can be executed only by users of appropriate type (Administrator, Manager, Expert and Person). The system reaction on the direct command also depends on the user´s type.

If you enter a direct command which is invalid, you will receive an error message. For a list of available direct commands, enter CD(SHOW DIRECT COMMAND’S LIST) in the command line. Each user gets the list of the allowed direct commands depending on his type.

The direct commands equivalent to each function together with threshold settings are shown in Figure 5-7.

COMMAND	DESCRIPTION	THRESHOLD
ADA	ADABAS maintenance menu	P
ADAACK	ADAACK Check address converter	M
ADACDC	ADACDC Changed data capture	M
ADACMP	ADACMP Compress/Decompress	P
ADACNV	ADACNV Database conversion	A
ADADBS	ADADBS Database services	P
ADADCK	ADADCK Check data storage	M
ADADEF	ADADEF Database definition	A
ADAFRM	ADAFRM Format	M
ADAICK	ADAICK Check index/AC	M
ADAINV	ADAINV Invert	E
ADALOD	ADALOD Loader	E
ADAMER	ADAMER ADAM estimation	E
ADAORD	ADAORD Reorder	M
ADAPLP	ADAPLP Protection log/WORK print	M
ADAPRI	ADAPRI Print selected blocks	M
ADARAI	ADARAI Recovery aid	M
ADAREF	ADAREF Reflective database	A
ADAREP	ADAREP Report	P
ADARES	ADARES Restart	M
ADASAV	ADASAV Save/Restore	M
ADASCR	ADASCR Security	M
ADASEL	ADASEL Select protection data	M
ADAULD	ADAULD Unload	P
ADAVAL	ADAVAL Validate database	M
ADAZAP	ADAZAP Modify datasets	A
ADAZIN	ADAZIN Print maintenance information	A
BR	Browse parameter list	P
CD	Browse global direct command list	P
CL	Browse command list	P
CM	Command help	P
DE	Delete parameter list	P
ED	Edit generated job	P
EX	Execute the job	P
EXIT	Terminate SEZAM session	P
GN	Generate the job	P
ID	Show user identification	P
JOB	Finished Jobs maintenance menu	P
JOB GN	Finished generated jobs	P
JOB SA	Finished saved jobs	P
LI	List of generated jobs	P
MENU	SEZAM main menu	P
NAT	NATURAL maintenance menu	P
NCAT	NATURAL Catall command	M
NERR	NATURAL error messages maintenance	P
NINP	NATURAL INPL Utility	M
NLOD	Load NATURAL programming objects	P

NOBJ	NATURAL Object Handler	P
NSCN	NATURAL Scan command	P
NSMA	NATURAL object maintenance	P
NSYS	NATURAL system commands processing	P
NTRS	NATURAL SYSTRANS Utility	P
NULD	Unload NATURAL programming objects	P
NUSR	NATURAL user program processing	P
NUTL	NATURAL utilities processing	P
OBJ	Finished objects	P
PAT	Patterns	P
SA	Save parameter list	P
SADM	SEZAM Administration	A
SAOS	SEZAM Online ADABAS Services	P
SCMP	SEZAM Compare of Natural objects	P
SCHK	SEZAM ADABAS Checkpoint Information	P
SDEL	SEZAM Delete Utility	A
SDEL EN	SEZAM Environment Delete Utility	A
SDEL HI	SEZAM History Delete Utility	A
SDEL PA	SEZAM Parmlist Delete Utility	A
SDEL SA	SEZAM Saved Jobs Delete Utility	A
SDEL TR	SEZAM Table Delete Utility	A
SDEL US	SEZAM User Delete Utility	A
SDEV	ADABAS Device Type Calculator	P
SADM	SEZAM Administration	A
SDDM	SEZAM Natural views information	P
SEZDBID	Display active databases	P
SEZDDM	Display view control information	P
SEZFDT	Display field description table (FDT)	P
SEZFILE	Display loaded files	P
SFUN	SEZAM Special functions	P
SLOD	SEZAM Load Utility	A
SLOD EN	SEZAM Environment Load Utility	A
SLOD HI	SEZAM History Load Utility	A
SLOD PA	SEZAM Parmlist Load Utility	A
SLOD SA	SEZAM Saved Jobs Load Utility	A
SLOD TR	SEZAM Table Load Utility	A
SLOD US	SEZAM User Load Utility	A
SLST	SEZAM List Utility	A
SLST EN	SEZAM Environment List Utility	A
SLST HI	SEZAM History List Utility	A
SLST PA	SEZAM Parmlist List Utility	A
SLST SA	SEZAM Saved Jobs List Utility	A
SLST TR	SEZAM Table List Utility	A
SLST US	SEZAM User List Utility	A
SMAN	SEZAM Maintenance	P
SMAN EN	SEZAM Environment Maintenance	A
SMAN HI	SEZAM History Maintenance	A
SMAN PA	SEZAM Parmlist Maintenance	A
SMAN SA	SEZAM Saved Job Maintenance	A

SMAN TR	SEZAM Translation Table Maintenance	A
SMAN US	SEZAM User Maintenance	A
SOPT	SEZAM Installation options	P
SRET	SEZAM Retrieval menu	A
SRET CO	SEZAM Command Retrieval	A
SRET FU	SEZAM Function Retrieval	A
SRET XR	SEZAM Cross Reference	A
SU	Submit generated job	P
SULD	SEZAM Unload Utility	A
SULD EN	SEZAM Environment Unload Utility	A
SULD HI	SEZAM History Unload Utility	A
SULD PA	SEZAM Parmlist Unload Utility	A
SULD SA	SEZAM Saved Jobs Unload Utility	A
SULD TR	SEZAM Table Unload Utility	A
SULD US	SEZAM User Unload Utility	A
SUTL	SEZAM Utilities	A
SZAP	SEZAM Applied source corrections	A

Figure 5-7: Direct commands equivalent to SEZAM functions

Program Function Keys

The following program function (PF) keys appear on all SEZAM screens:

Key	Function
PF1	Help
PF3	Exit to previous screen

Other keys can appear on some screens. Available PF keys and their functions are listed on the bottom of every SEZAM screen. The extended information about PF keys assignments is provided on the SEZAM functional screens with the CM(COMMAND HELP) command (Fig. 5-6).

Getting Help

SEZAM provides the possibility of getting help on every screen.

When entered “?“ , or PF1 SEZAM displays a brief information describing the screen. The „on-line help“ gives information about the individual SEZAM functions; on-line help is the very best choice when questions arrise while operating SEZAM.

6. SEZAM Commands

This chapter describes the use of SEZAM Commands.

Job Processing Commands

SEZAM job processing is the facility which provides the following functions against the JCL/REXX:

* Generation

* Modification

* Submitting to the operating system for execution.

The job processing commands can be entered on the functional screens in the „Command“ field on the top of screen. These commands ensure a wide range of the different ways of job processing.

EX..Execute Job Immediately Command

EX(EXECUTE JOB) command generates the job and pushes it immediately forward to the operating system for execution.

To perform the EXECUTE JOB command execute the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1). For example ADAREP ADABAS utility (Fig. 6-1).

Enter the valid ADABAS and SEZAM parameters: in the field „Environment“ should be entered the environment name where the selected function have to be executed (Fig. 6-1).

Enter „EX“ command.

Modify the displayed job statements (Fig. 6-2). During the job generation SEZAM breaks the processing and offres to change the certain JCL/REXX statements.
The set of these statements is defined in the environment description. For information about the environment maintenance, consult the *SEZAM Administration Manual.*

Confirm the job submitting (Fig. 6-3)

After the successfully processing the following message is displayed:

SEZ0073: JCL cards submitted to operating system successfully

```
08:51:46 -------------------- Report / ADAREP --------------------- 2009-10-12
 Command ===> EX

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> F11177____ / MULTI_
   Nofile             ===> Y           Cp/Cpexlist    ===> N / N
   Nostd              ===> N           From/Todate    ===> ________ / ________
    Nolglist/Nophlist ===> Y / Y       From/Tosession ===> ______   / ______
   Nofdt/Noppt        ===> N / N
   File          ===> ____________________________________________________
                      ____________________________________________________
                      ____________________________________________________
   No/Limcount   ===> N  / ___________    Savetape    ===> _______
   Offset/Layout ===> __ / _              Plognum     ===> _____
   Output        ===> __________          Syn1/Syn4   ===> _____ / _____
   Acode         ===> ________________    Nouserabend ===> N
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                    Alloc
```

Figure 6-1: ADAREP Screen with EX Command

```
14:18:34 --------------------- Job generation --------------------- 2003-08-14
 Command ===>

 ? - Help
.........................................................................
 Enter the valid JCL parameters:

 //KSMFAREP JOB (,,,999),'KSM',CLASS=W,MSGCLASS=X_____________________________
 //* SEZ312:F11177-ADAREP(Report)_____________________________________________
 _________________________________________________________________________
 _________________________________________________________________________
 _________________________________________________________________________
 _________________________________________________________________________
 _________________________________________________________________________
 _________________________________________________________________________

 ----+---010---+---020---+---030---+---040---+---050---+---060---+---070--




Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 6-2: Job Generation screen

```
14:19:01 ---------------- Processing confirmation ----------------- 2003-08-14
 Command ===>

 ? - Help
 ..............................................................................
 Environment F11177      Program ADAREP REPORT


 The JCL generation completed successfully

 Please confirm submitting with Y
                           ===> Y









 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
       Help        Exit
```

Figure 6-3: Processing Confirmation screen

GN..Generate Job Command

GN(GENERATE JOB) command generates job and saves it as a NATURAL text object. The generated JCL/REXX can be used later.

To perform the GENERATE JOB command do the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1). For example ADAREP ADABAS utility (Fig. 6-4).

Enter ADABAS and SEZAM parameters (Fig. 6-4):
  - in the field „Environment“ should be entered the environment name where the selected function have to be processed;
  - the field „Job name“ should contain the name of NATURAL objec where the generated JCL/REXX has to be saved. If this object already exists in the current NATURAL library, it can be overwritten.

Enter „GN“ command.

Confirm save (Fig. 6-5).

After the successfully processing no messages are displayed.

```
14:24:54 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> GN

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> F11177_____________________       Job name ===> DUMMY_
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> F11177____ / MULTI_
   Nofile      ===> N                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> N                  From/Todate    ===> ________ / ________
   Nophlist    ===> N                  From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                        Savetape  ===> _______
   Limcount    ===> ___________              Plognum   ===> _____
   Nouserabend ===> N                        Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                      Alloc
```

Figure 6-4: ADAREP Screen with GN Command

```
14:26:43 ---------------- Processing confirmation ----------------- 2003-08-14
Command ===>

? - Help
.....................................................................
Environment F11177      Program ADAREP REPORT


The JCL generation completed successfully and job will be overwritten

Please confirm with Y saving into KSM(SJDUMMY)
               ===> Y









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
      Help        Exit
```

Figure 6-5: Processing Confirmation screen

The example of the generated job is shown in Figure 6-6.

Please pay attention to the fact that the name of the object is SJDUMMY although the name of the NATURAL object was defined as DUMMY (Fig. 6-4).
SEZAM allowes only 6-bytes job names, the first two characters are filled with the settings from the user exit SN00UEX2 (default is „SJ“). For information about SEZAM user exits, refer to *SEZAM Installation Manual*.

```
>                                      > +  Text        SJDUMMY  Lib KSM
Top    ....+....1....+....2....+....3....+....4....+....5....+.Mode Structured.
  0010 //KSMFAREP JOB (,,,999),'KSM',CLASS=W,MSGCLASS=X
  0020 //* SEZ312:F11177-ADAREP(Report)
  0030 //* SEZENV=F11177
  0040 /*ROUTE XEQ DAEF
  0050 /*JOBPARM SYSAFF=DAEF
  0060 /*ROUTE PRINT DAEF
  0070 //SEZADA EXEC PGM=ADARUN,REGION=8000K,TIME=1440
  0080 //STEPLIB  DD DSN=OPS.COMN.LOAD,DISP=SHR
  0090 //         DD DSN=RZDBA.DB11177.NEWLOAD,DISP=SHR
  0100 //         DD DSN=RZDBA.DB11177.LOAD,DISP=SHR
  0110 //DDASSOR1 DD DSN=DB11177.ASSOR1,DISP=SHR
  0120 //DDDATAR1 DD DSN=DB11177.DATAR1,DISP=SHR
  0130 //DDWORKR1 DD DSN=DB11177.WORKR1,DISP=SHR
  0140 //DDDRUCK  DD SYSOUT=*
  0150 //DDPRINT  DD SYSOUT=*
  0160 //DDCARD   DD *
  0170 ADARUN PROG=ADAREP
  0180 ADARUN SVC=249
  0190 ADARUN DEVICE=3390
  0200 ADARUN MODE=MULTI
       ....+..Current Source Size: 733 Char. Free: 38532 ....+... S 24   L 1
```

Figure 6-6: Example of the generated JCL

LI..List Generated Job Command

LI(LIST GENERATED JOB) command displays the list of one or more generated jobs in the current library.

This command works on the base of the NATURAL List system command.

To perform the LIST GENERATED JOB command execute the following steps:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1), or use the Generated Jobs facility (consult section *Generated Jobs*).
For example, the ADAREP ADABAS utility was selected (Fig. 6-7).

Enter SEZAM parameters (Fig. 6-7): the field „Job name“ can contain the following:
- BLANK or an asterisk (*) to display the list of all generated jobs;
- NONBLANK to list a certain range of objects. An asterisk notation is the option to specify an asterisk (*) in the „Job name“ field; for example:

```
Job destination:
    Job name ===> D*MMY*
```

Enter „LI“ command. The standard screen of the NATURAL List system command shows the list of the generated jobs (Fig. 6-8). On this screen are the variuos NATURAL system commands available (EDIT, RENAME, DELETE etc.).

After the successfully processing no messages are displayed.

```
14:36:53 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> LI

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> D*MMY*
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> _______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                     Savetape  ===> _______
   Limcount    ===> ___________           Plognum   ===> _____
   Nouserabend ===> N                     Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                    Alloc
```

Figure 6-7: ADAREP Screen with LI Command

```
14:37:43               ***** NATURAL LIST COMMAND *****             2003-08-14
User KSM                 - LIST Objects in a Library -         Library KSM

Cmd  Name       Type         S/C  SM Version  User ID    Date        Time
---  SJD*MMY*_  *__________  *__  *  *_______  *________  *_________ *________
__   SJDUMMY    Text         S       3.1.06   KSM        2003-08-14  14:30:24
__   SJDUMMYN   Text         S       3.1.06   KSM        2003-07-10  14:58:12
__   SJDUMMY1   Text         S       3.1.06   KSM        2003-08-07  14:01:51
__   SJDUMMY2   Text         S       3.1.06   KSM        2003-06-06  11:49:27
__   SJDUMMY3   Text         S       3.1.06   KSM        2003-07-07  16:17:59









                                                          5 Objects found
Top of List.
Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Print Exit             --    -     +     ++          >     Canc
```

Figure 6-8: Example of NATURAL List Command Screen

ED..Edit Generated Job Command

ED(EDIT GENERATED JOB) command performs browse and modification of the generated JCL/REXX before submitting it to the operating system for execution.

This command is realized with the standard functions of the NATURAL native, or NATURAL SPF editor.

To perform the EDIT GENERATED JOB command execute the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1)), or use the Generated Jobs facility (consult section *Generated Jobs*).
For example, ADAREP ADABAS utility was selected (Fig. 6-9).

Enter SEZAM parameters (Fig. 6-9): the field „Job name“ should contain the name of the NATURAL object with generated JCL/REXX to be browsed or modified.

Enter „ED“ command. The standard screen of the NATURAL editor is shown in Figure 6-6.

After the successfully processing no messages are displayed.

```
14:41:44 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> ED

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                        Savetape  ===> _______
   Limcount    ===> ___________              Plognum   ===> _____
   Nouserabend ===> N                        Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                      Alloc
```

Figure 6-9: ADAREP Screen with ED Command

SU..Submit Generated Job Command

SU(SUBMIT GENERATED JOB) command passes the generated JCL/REXX to the operating system for execution.

To perform the SUBMIT GENERATED JOB command execute the following steps:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1), or use the Generated Jobs facility (consult section *Generated Jobs*).
For example, ADAREP ADABAS utility was selected (Fig. 6-10).

Enter SEZAM parameters (Fig. 6-10): the field „Job name“ should contain the name of the NATURAL object with a generated JCL/REXX which has to submitted.

Enter „SU“ command.

Confirm submitting of the generated job to the operating system (Fig. 6-11).

After the successfully processing the following message is displayed:

SEZ0073: JCL cards submitted to operating system successfully

```
14:41:44 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> SU

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> _________ / _________
   Nophlist    ===> Y                  From/Tosession ===> _______   / _______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                        Savetape  ===> ________
   Limcount    ===> ___________              Plognum   ===> _____
   Nouserabend ===> N                        Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                      Alloc
```

Figure 6-10: ADAREP Screen with SU Command

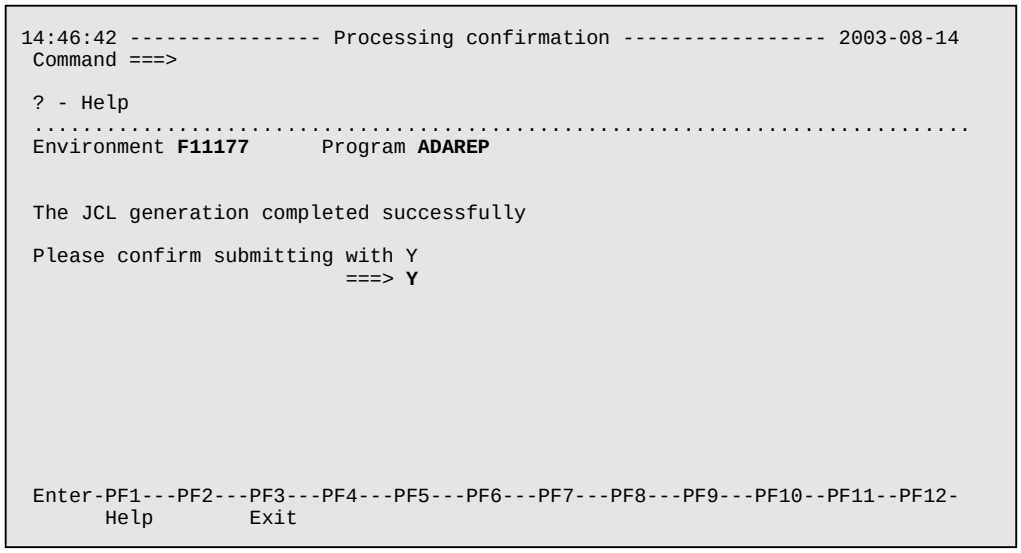

Figure 6-11: Processing Confirmation screen

SU/SB..Submit Modified Job Commands

SU, or SB(SUBMIT MODIFIED JOB) submit the JCL/REXX from the NATURAL source area without saving a job.

The command can be entered from the command line of the NATURAL native editor (Fig. 6-6), or from the command line of the NATURAL session.

Parameter's List Processing Commands

SEZAM parameter's list facility reduces the time of ADABAS/NATURAL parameter's customizing providing the possibility to use the same set of parameters more than once.

The facility includes the following:

* Create parameter's list

* Update parameter's list

* Browse parameter's list

* Delete parameter's list

The parameter's list can be processed (saved, updated etc.) with it's name. This name is optional by the all parameter's list processing commands.

The parameter's list has its owner (i.e. user who has created it) and can be processed only from the screen of the corresponding ADABAS/NATURAL function.

The parameter's list processing commands can be entered on the functional screens in the „Command“ field on the top of the screen.

SA..Save Parameter's List

SA(SAVE PARAMETER'S LIST) command creates a new and updates an already existed parameter's list.

To perform the SAVE PARAMETER'S LIST command execute the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1). For example ADAREP ADABAS Utility (Fig. 6-12).

Enter ADABAS and SEZAM parameters: in the field „Parmlist name“ can be entered the name of the parameter's list, which have to be created or updated (Fig. 6-12). This parameter can be omitted.

Enter „SA“ command. The execution against the already existed parameter's list updates it's contents.

If the „Parmlist name“ is omitted all parameter's lists belonging to the current user and connected with the current ADABAS/NATURAL function will be shown (Fig. 6-13). On this screen you can select with a non-blank character one of the following parameter's lists. The current command (Save) is displayed in the field „Parmlist command“.

After the successfully processing the following messages are displayed:

SEZ0084: Parameter list saved successfully

or:

SEZ0082: Parameter list updated successfully

```
 15:21:45 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> SA

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> PRM01_____________________    Job name ===> DUMMY_
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> N                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> _______   / _______
   Nostd       ===> N
   File        ===> 1,3,13,17_____________________________________________
                    _____________________________________________________
                    _____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                     Savetape  ===> _______
   Limcount    ===> ___________           Plognum   ===> _____
   Nouserabend ===> N                     Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                    Alloc
```

Figure 6-12: ADAREP Screen with SA Command

```
15:23:07 --------------------- Parameter's list ------------------- 2003-08-14
 Command ===>                                              SCROLL ===> PAGE

 CM  - Command help
.....................................................................
 Parmlist command ===> Save

 Sel    Parmlist Name
 ---    ------------------------
 _      PRM01
 _      REP-CHECKPOINTS ONLY
 _      REP-FILES ONLY
 _      REP-SHORT
 _      SAVETAPE
 _      SEZUNLOAD
 _      SHORT
 _      S069
 _      S088
 _      T103

Total records ====> 20
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +
```

Figure 6-13: Parameter’s List Screen with SA Command

BR..Browse Parameter's List

BR(BROWSE PARAMETER'S LIST) command displays the contents of the parameter's list on the current functional screen.

To perform the BROWSE PARAMETER'S LIST command take the following steps:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1). For example ADAREP ADABAS utility (Fig. 6-14).

Enter ADABAS and SEZAM parameters: in the field „Parmlist name" can be entered the name of parameter's list, which contents have to be displayed (Fig. 6-14).
This parameter can be omitted.

Enter „BR" command.

If the „Parmlist name" is omitted all parameter's lists belonging to the current user and connected with the current ADABAS/NATURAL function will be shown (Fig. 6-15). On this screen you can select with a non-blank character one of the following parameter's lists. The current command (Browse) is displayed in the field „Parmlist command".

After the successfully processing the contents of the selected parameter's list will be displayed on the current functional screen (Fig. 6-16) and the following message is displayed:

SEZ0085: Parameter list browsed successfully

```
15:25:28 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> BR

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> PRM01_____________________       Job name ===> DUMMY_
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                 Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                 From/Todate    ===> ________ / ________
   Nophlist    ===> Y                 From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                      Savetape  ===> _______
   Limcount    ===> ___________            Plognum   ===> _____
   Nouserabend ===> N                      Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                    Alloc
```

Figure 6-14: ADAREP Screen with BR Command (before command execution)

```
15:26:07 --------------------- Parameter's list ------------------- 2003-08-14
 Command ===>                                                SCROLL ===> PAGE

 CM  - Command help
.............................................................................
 Parmlist command ===> Browse

 Sel    Parmlist Name
 ---    ------------------------
 X      PRM01
 _      REP-CHECKPOINTS ONLY
 _      REP-FILES ONLY
 _      REP-SHORT
 _      SAVETAPE
 _      SEZUNLOAD
 _      SHORT
 _      S069
 _      S088
 _      T103

Total records ====> 20
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +     Delete
```

Figure 6-15: Parameter's List Screen with BR Command

```
  15:27:42 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===>

 CM - Command help
.............................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> PRM01_____________________       Job name ===> DUMMY_
.............................................................................
 Utility parameters:
  Environment/AdarunMode ===> F11177____ / MULTI_
   Nofile      ===> N                 Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                 From/Todate    ===> ________ / ________
   Nophlist    ===> Y                 From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> 1,3,13,17_____________________________________________
                    _____________________________________________________
                    _____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                       Savetape  ===> _______
   Limcount    ===> ___________             Plognum   ===> _____
   Nouserabend ===> N                       Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                      Alloc
```

Figure 6-16: ADAREP Screen with BR Command (after command execution)

DE..Delete Parameter's List

DE(DELETE PARAMETER'S LIST) command deletes the parameter's list.

To perform the DELETE PARAMETER'S LIST command execute the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1). For example ADAREP ADABAS utility (Fig. 6-17).

Enter ADABAS and SEZAM parameters: in the field „Parmlist name" can be entered the name of parameter's list, which have to be deleted (Fig. 6-17).
This parameter can be omitted.

Enter „DE" command.

If the "Parmlist name" is omitted all parameter's lists belonging to the current user and connected with the current ADABAS/NATURAL function will be shown (Fig. 6-18). On this screen you can select with a non-blank character one of the following parameter's lists. The current command (Delete) is displayed in the field "Parmlist command". The delete has to be confirmed with the parmlist's name.

After the successfully processing the following message is displayed:

SEZ0086: Parameter list deleted successfully

```
15:29:27 -------------------- Report / ADAREP ---------------------- 2003-08-14
 Command ===> DE

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> PRM01_____________________       Job name ===> DUMMY_
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                        Savetape  ===> _______
   Limcount    ===> ___________              Plognum   ===> _____
   Nouserabend ===> N                        Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                     Alloc
```

Figure 6-17: ADAREP Screen with DE Command

```
15:29:58 --------------------- Parameter's list ------------------- 2003-08-14
 Command ===>                                                 SCROLL ===> PAGE

 CM  - Command help
.............................................................................
 Parmlist command ===> Delete

 Sel    Parmlist Name
 ---    ------------------------
 X      PRM01
 _      REP-CHECKPOINTS ONLY
 _      REP-FILES ONLY
 _      REP-SHORT
 _      SAVETAPE
 _      SEZUNLOAD
 _      SHORT
 _      S069
 _      S088
 _      T103

Total records ====> 20
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +     Browse
```

Figure 6-18: Parameter’s List Screen with DE Command

Other Commands

This commands can be entered in the functional screens in the „Command“ field at the top of screen.

CM..Show Command’s Help

CM(SHOW COMMAND’S HELP) command displays the description of currently available SEZAM commands and PF keys.

To perform the SHOW COMMAND’S HELP command execute the following:

Select the SEZAM functional screen. For example, ADAREP ADABAS utility was selected (Fig. 6-19).

Enter „CM“ command. The example of the command’s help screen is shown in Figure 6-20.

After the successfully processing no messages are displayed.

```
15:33:49 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> CM

 CM - Command help
.............................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.............................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                 Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                 From/Todate    ===> ________ / ________
   Nophlist    ===> Y                 From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                      Savetape  ===> _______
   Limcount    ===> ___________            Plognum   ===> _____
   Nouserabend ===> N                      Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                     Alloc
```

Figure 6-19: ADAREP Screen with CM Command

```
15:34:13 ------------------------ Commands ------------------------ 2003-08-14
Parameter list maintenance:
 SA/BR/DE - save/browse/delete parameter list
Job generation maintenance:
 EX    - generate job and execute immediately
 GN    - generate job in natural object, specified by JOBNAME parameter
 ED    - edit already generated job, specified by JOBNAME parameter
 SU    - submit already generated job from natural object, specified by
         JOBNAME parameter
 LI    - browse already generated job (specified by JOBNAME parameter),
         or browse the list of all already generated jobs (parameter JOBNAME
         is empty)
Others:
 CL/CD - available command's/global direct command's list
 ID    - browse authorization of the current user in the specified env.
PF-Keys:
 PF1   - help
 PF3   - processing termination
 PF4   - default values
 PF12  - JCL requirements processing

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
                  Exit
```

Figure 6-20: Example of Command's Help Screen

CL..Show Command's List

CL(SHOW COMMAND'S LIST) command displays the list of all available commands and allows to select the command from the list.

To perform the SHOW COMMAND'S LIST command execute the following:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1); for example, ADAREP ADABAS utility (Fig. 6-21).

Enter „CL“ command.

Select an appropriate command from the list of the commands with the non-blank symbol against the desired command, or use the cursor selection (Fig. 6-22).

  If the contents of the I(Identification) field is blank, it means that the entire command has to be identical to the command from the command's list; for example: PROFILE, GLOBALS, BR etc. Otherwise only the visual part of the command must be identical to the command from the command`s list; for example: LIST VIEW, LIST VIEW, HELP 3148 etc.

After the successfully processing no messages are displayed.

```
16:23:00 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> CL

 CM - Command help
.............................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.............................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> _______   / _______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                      Savetape  ===> ________
   Limcount    ===> ___________            Plognum   ===> _____
   Nouserabend ===> N                      Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                     Alloc
```

Figure 6-21: ADAREP Screen with CL Command

```
16:23:33 --------------------- Command list ----------------------- 2003-08-14
 Command ===>                                              SCROLL ===> PAGE

 ? - Help
.............................................................................
 Sel  Command Name                  I  Command Description
 ---  ----------------------------  -  ----------------------------------
 _    CL                            -  Browse command list
 _    CM                            -  Command help
 _    BR                            -  Browse parameter list
 _    DE                            -  Delete parameter list
 _    ED                            -  Edit generated job
 _    EX                            -  Execute the job
 _    GN                            -  Generate the job
 _    ID                            -  Show user identification
 _    LI                            -  List of generated jobs
 _    SA                            -  Save parameter list
 _    SU                            -  Submit generated job
 _    CD                            -  Browse global direct command list

 Total records ===> 25
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +
```

Figure 6-22: Command’s List Screen

CD..Show Direct Command's List

CD(SHOW DIRECT COMMAND'S LIST) command displays the list of all available direct commands and allows to select the command from the list.

The list of the direct commands and the reaction of SEZAM on the entered command depend on the user´s type.

To perform the SHOW DIRECT COMMAND'S LIST command execute the following:

Enter on the function or menu screen „CD“ command.

Select the appropriate direct command from the list of commands with the non-blank symbol against the desired command (Fig. 6-23).

```
16:25:26 ---------------- Direct command list --------------------- 2003-08-14
 Command ===>                                                SCROLL ===> PAGE

 ? - Help
.............................................................................
 Sel   Command Name                   Command Description
 ---   ------------------------------  ------------------------------------
 _     ADA                             ADABAS maintenance menu
 _     NAT                             NATURAL maintenance menu
 _     JOB                             Finished Jobs maintenance menu
 _     MENU                            SEZAM main menu
 _     EXIT                            Terminate SEZAM session
 _     ADACMP                          ADACMP Compress/Decompress
 _     ADADBS                          ADADBS Database services
 _     ADADEF                          ADADEF Database definition
 _     ADAFRM                          ADAFRM Format
 _     ADAINV                          ADAINV Invert
 _     ADALOD                          ADALOD Loader
 _     ADAORD                          ADAORD Reorder

 Total records ===> 93
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +
```

Figure 6-23: Example of CD Command

ID..Show User's Authority

ID(SHOW USER'S AUTHORITY) command displays the user's identification information and makes it possible to browse through the allowed ADABAS/NATURAL functions.

To perform the SHOW USER'S AUTHORITY command take the next steps:

Perform one of the following:
- select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1); for example, ADAREP ADABAS utility (Fig. 6-24) and enter „ID" Command;
- on the startup menu enter the corresponding function code of the „Authorities" function. The startup menu for the MANAGER is shown in Figure 6-25.

On the user authorization screen (Fig. 6-26) are listed all the environments where the user is defined. For example, user KSMM can operate:
- with the environments A001 and F080 as MANAGER;
- with the environment F11177 as PERSON with ADABAS files 5, 6 and 7.

To display the detailed user information for the corresponding environment enter US(DISPLAY USER INFORMATION) command against the selected user's entry (Fig. 6-26). The examples of Browse Manager and Browse Person screens are shown in Figure 6-27, 6-28. After the successfully processing the following message is displayed:

SEZ0014: User browsed successfully

To browse the set of the ADABAS/NATURAL functions available for the user within the specified environment enter FU(SHOW AVAILABLE FUNCTIONS) command on the user authorization screen (Fig. 6-26). The example of allowed function's list screen for PERSON is shown in Figure 6-29. After the successfully processing the following message is displayed:

SEZ0099: List of allowed functions browsed successfully

To display the description of the SEZAM environment enter EN(DISPLAY ENVIRONMENT DESCRIPTION) command on the user authorization screen (Fig. 6-26). The example of the environment description is shown in Figure 6-30. After the successfully processing the following message is displayed:

SEZ0371: Description browsed successfully

ID command allows selecting the environment for the further processing with the ADABAS/NATURAL function (Fig. 6-24).
To do it enter SE(SELECT ENVIRONMENT) command on the user authorization screen (Fig. 6-26).

```
16:28:29 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> ID

 CM - Command help
.............................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________          Job name ===> DUMMY_
.............................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                      Savetape  ===> _______
   Limcount    ===> ___________            Plognum   ===> _____
   Nouserabend ===> N                      Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                     Alloc
```

Figure 6-24: ADAREP Screen with ID Command

```
16:29:18 ------------------ Manager Startup Menu ------------------ 2003-08-14
 Function ===> 7

 _ 1 SEZAM maintenance
 _ 2 ADABAS maintenance
 _ 3 ADABAS EVENT REPLICATOR maintenance
 _ 4 NATURAL maintenance
 _ 5 Finished objects
 _ 6 Special functions
 _ 7 Authorities









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 6-25: Manager Startup Menu

```
16:29:49 ------------------ User authorization -------------------- 2003-08-14
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.............................................................................
 User ===> KSMM

 Co  T Env.       Description       File list             Date       Created
 --  - ---------- ----------------- --------------------- ---------- --------
 __  M A001       daea Application                        2003-03-21 KSM
 __  M F080       daef DBA                                2003-03-21 KSM
 US  P F11177     daef General      5,6,7                 2003-03-21 KSM









 Total records ===> 3
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refr
```

Figure 6-26: User Authorization Screen

```
16:34:46 ------------ User maintenance / Browse manager ----------- 2003-08-14
 Command ===>

 ? - Help
.............................................................................

   User name        ===> KSMM
   Environment      ===> F080
   User info        ===> 'KSM'
   User type        ===> M
   Date of creation ===> 2003-03-21
   Created by       ===> KSM









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 6-27: Browse MANAGER Screen

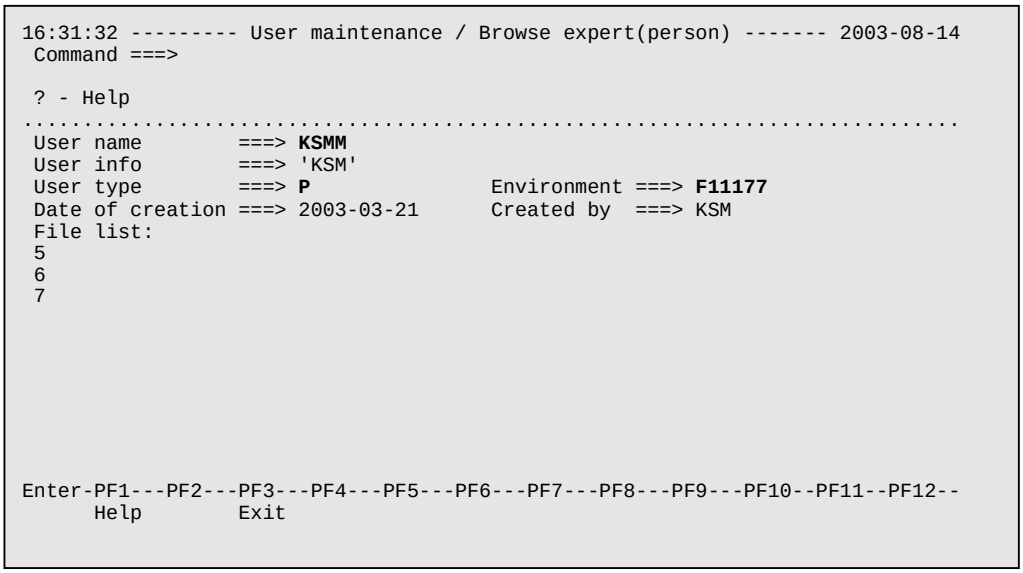

Figure 6-28: Browse EXPERT/PERSON Screen

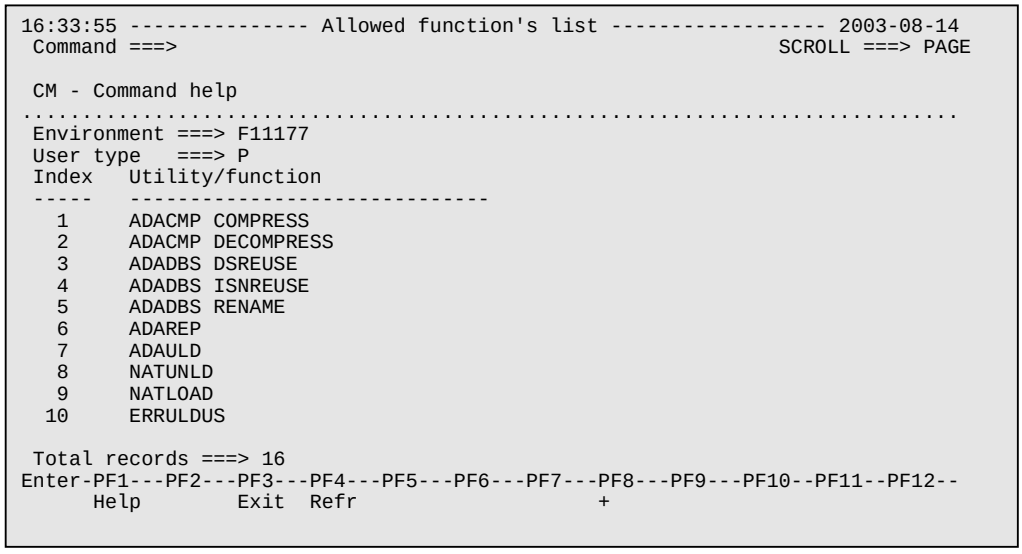

Figure 6-29: Allowed Function’s Screen for EXPERT/PERSON

```
16:45:44 ------ Environment maintenance / Display description ----- 2003-08-14
 Command ===>

 ? - Help
.............................................................................
 Environment ===> F11177

 Descriprion records:
  Hdr daef General
 0001 Contact persons: KSM/SAL
 0002 Comments:
 0003 Natural 2.3 System Files
 0004 Natural 3.1 System Files
 0005 Natural 4.1 System Files
 0006
 0007
 0008
 0009
 0010
 0011

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 6-30: Environment Description Screen

External Commands

The set of SEZAM Commands (such as EX/GN/SU etc.) can be increased with the number of external non-SEZAM commands, for example: SPF, SCAN, CATALL, etc.

The set of external commands can be dynamically changed. For information about the maintenance of external commands, consult the *SEZAM Installation Manual.*

The external commands can be entered in the functional screens in the „Command“ field on the top of screen.

The CL(SHOW COMMAND’S LIST) command makes possible to browse through the list of all available commands including the external commands and to select the appropriate command.

To perform the external command execute the following steps:

Select the ADABAS/NATURAL MAINTENANCE function (Fig. 3-1); for example ADAREP ADABAS utility.

Enter external command, for example „SPF“ (Fig. 6-30).

```
16:50:19 -------------------- Report / ADAREP --------------------- 2003-08-14
 Command ===> SPF

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> __________ / MULTI_
   Nofile      ===> Y                  Cp/Cpexlist    ===> N / N
   Nolglist    ===> Y                  From/Todate    ===> ________ / ________
   Nophlist    ===> Y                  From/Tosession ===> ______   / ______
   Nostd       ===> N
   File        ===> ____________________________________________________
                    ____________________________________________________
                    ____________________________________________________
   Nofdt       ===> N
   Nocount     ===> N                      Savetape  ===> _______
   Limcount    ===> ___________            Plognum   ===> _____
   Nouserabend ===> N                      Syn1/Syn4 ===> _____ / _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults                                     Alloc
```

Figure 6-30: ADAREP Screen with SPF External Command

7. ADABAS and ADABAS Event Replicator Maintenance

The ADABAS maintenance is the facility which allows to generate and execute JCL/REXX for the ADABAS utilities. The ADABAS Event Replicator maintenance is the facility which allows to generate and execute JCL/REXX for the ADABAS Event Replicator utilities, or for the ADABAS utilities with the specific parameters for the Event Replicator.

The set of ADABAS utilities depends on the user type. The ADABAS Event Replicator maintenance is only available for the users type Administrator, or Manager. The overview of the ADABAS utilities for the different user's types is shown in Figures 7-1, 7-2, 7-3, 7-4.

ADABAS utility screens are designed to provide the possibility of entering at the first time the most useful parameters. The other parameters can be processed separately on the ADABAS utility additional screens.

The following program function (PF) keys can be available on ADABAS Utility functional screens:

Key	**Function**
PF1	Help
PF3	Exit to previous screen
PF4	Set default values of ADABAS utility parameters
PF7	Define the additional parameters of ADABAS utility
PF11	SEZAM add-on for the ADABAS utility
PF12	Allocate required and optional datasets for the ADABAS utility (can be processed automatically, for more information about customizing please refer to *Sezam Installation Manual*)

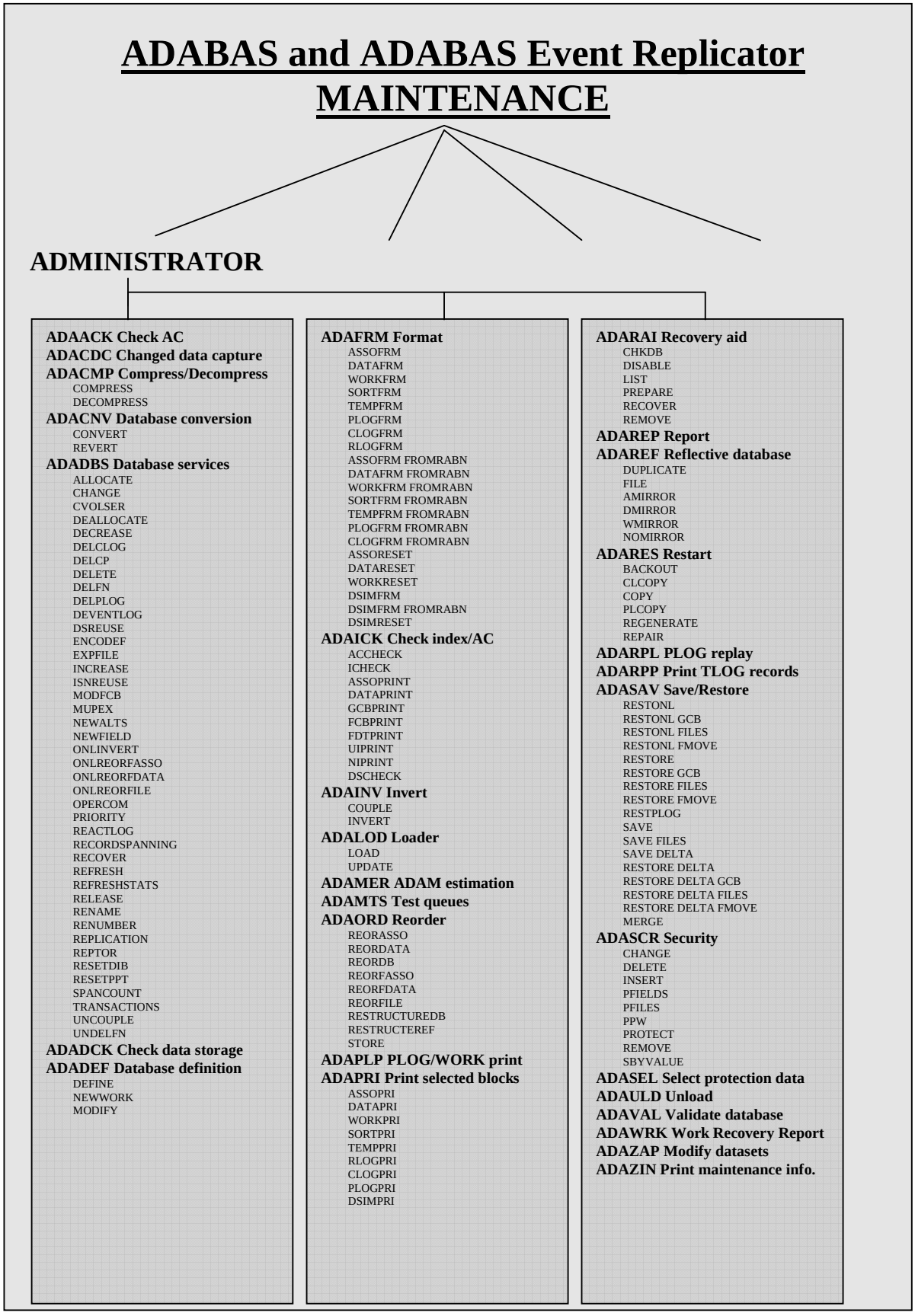

Figure 7-1: Overview of ADABAS Maintenance functions for ADMINISTRATOR

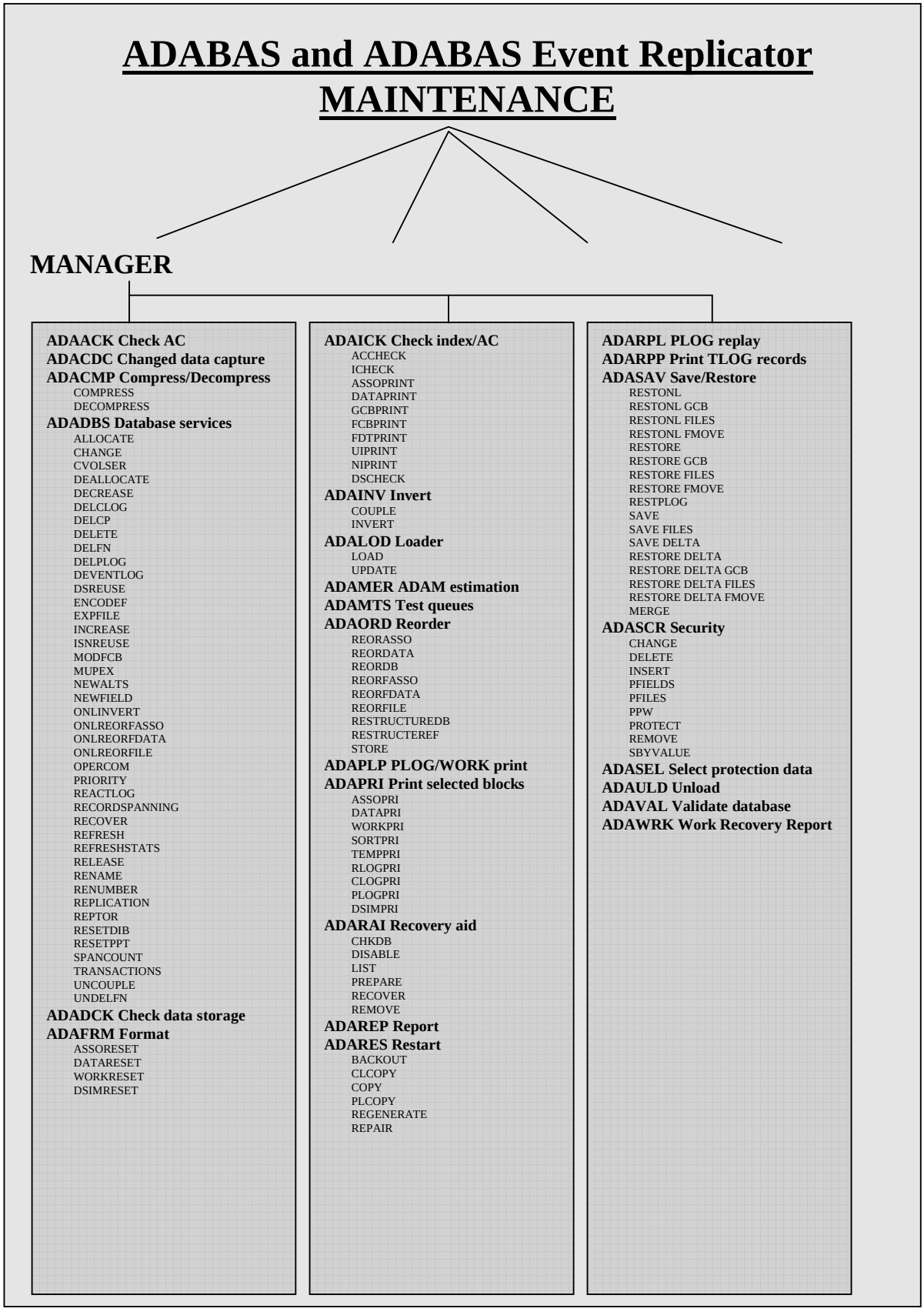

Figure 7-2: Overview of ADABAS Maintenance functions for MANAGER

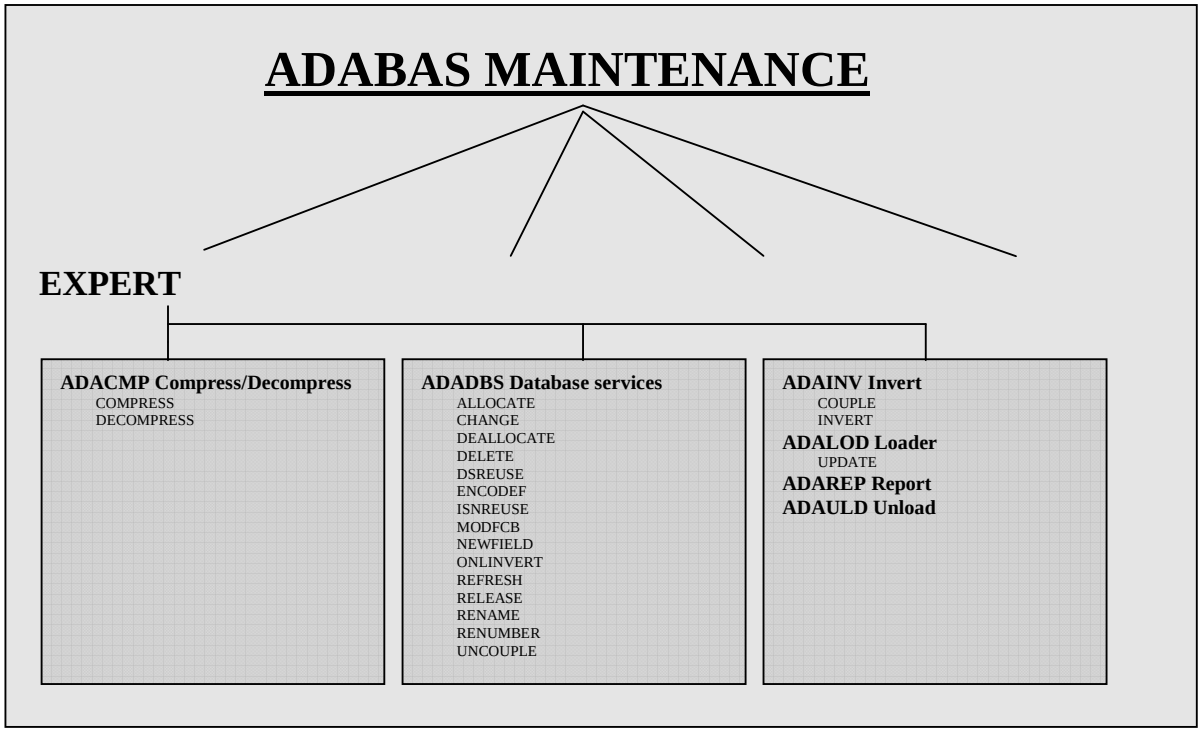

Figure 7-3: Overview of ADABAS Maintenance functions for EXPERT

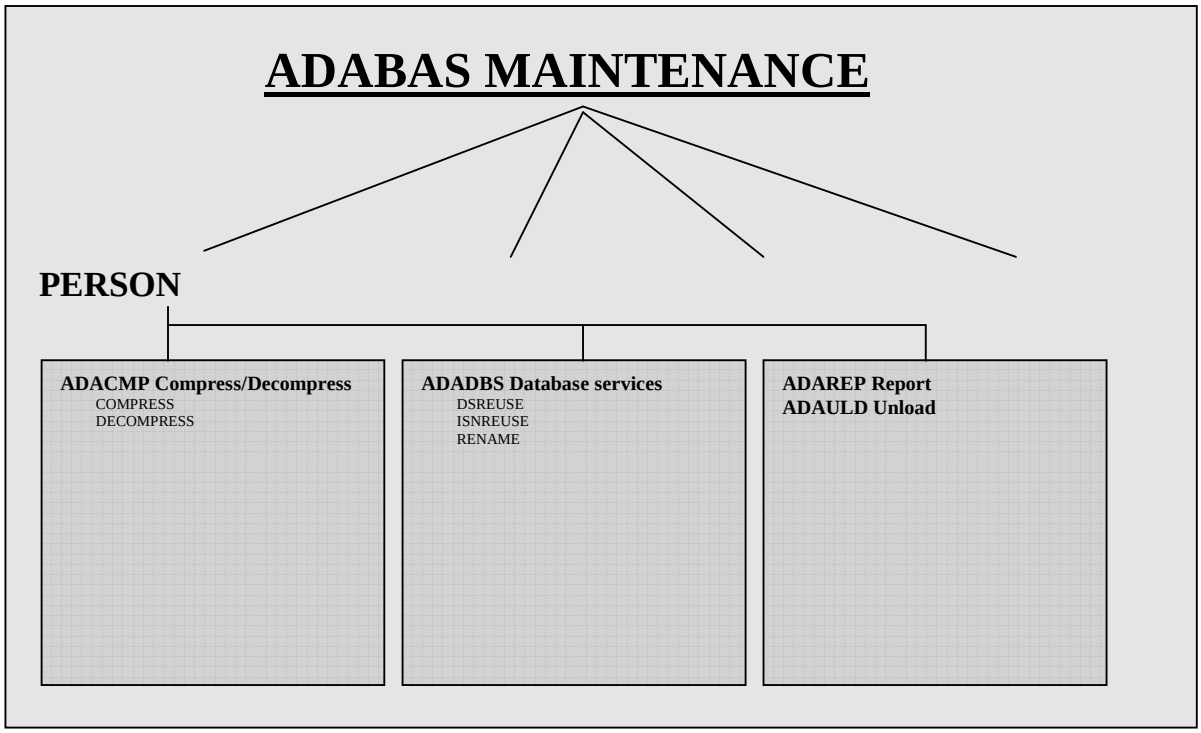

Figure 7-4: Overview of ADABAS Maintenance functions for PERSON

To execute the ADABAS Maintenance functions perform the following:

Enter in the „Function“ field the corresponding number of the „ADABAS maintenance“ function on the startup menu. The example of the startup menu is shown in Figure 7-5.

Select the ADABAS utility by entering its corresponding number in the „Function“ field of ADABAS utilities menu; for example ADALOD Loader utility (Fig. 7-6).

Select the function (if exists) of the ADABAS utility; for example:
ADALOD LOAD (Fig. 7-7).

Enter the required and optional ADABAS utility parameters on the functional screen (Fig. 7-8). The step can be done with the help of parameter’s list commands (SA/BR/DE). For information about parameter’s list commands consult the section *SEZAM Commands.*

If the need arises, provide the ADABAS utility additional parameters which usually don’t present on the ADABAS utility screen (Fig. 7-8). To process the additional parameters do the following:
- press PF7 to get the ADABAS utility additional functional screen (Fig. 7-9);
- enter the additional parameters; for example „NUMREC=10000“ (Fig. 7-9).
The additional parameters can be processed with the help of parameter’s list commands (SA/BR/DE);
- press PF6 to accept the entered values. The following message is displayed:

SEZ0092: Additional parameters accepted successfully

- press PF3 to exit the additional parameters processing.

For the utilities, all parameters of which can be placed on the single screen, there is no necessity to divide the utility parameters into utility screen and utility additional screen. For this utilities the PF7 assignment is missing; for example, ADAREP (Report Generator).

Out of necessity allocate the datasets which are required for some of ADABAS utilities. For example, for the ADALOD (LOAD) the following datasets are to be allocated:
- DDEBAND (Compressed Data), is required;
- DDFILEA (Temp Overflow), is optional.

The dataset allocation can be processed, depending on the SEZAM system settings, in two different ways:
- automaticaly, i.e. SEZAM starts the processing on his own, or
- manualy, when the processing is started with pressing PF12 function key.

For more information about this feature refer to *Setting Defaults* in *SEZAM Installation Manual*.

The following information is displayed (Fig. 7-10):

1. Environment where the utility have to be executed (DB001):

Environment*/Program/Function* ===> ***DB001*** */ ADALOD / Load*

2. The ADABAS utility which have to be executed (ADALOD):

*Environment/****Program****/Function* ===> *DB001 /* ***ADALOD*** */ Load*

3. The ADABAS utility function which have to be executed (Load):

*Environment/Program/****Function*** ===> *DB001 / ADALOD /* ***Load***

4. The total number of all/required datasets which have to be allocated (2/1):

Dataset ===> *1* ***/ 2***
Required ===> ***0 / 1***

5. The current number of dataset which have to be allocated on the current screen (1):

Dataset ===> ***1*** */ 2*

6. The DD Name (z/OS), Symbolic Name (z/VSE) or Link Name (BS2000/OSD) and the purpose of the dataset, which is to allocated on the current screen (EBAND / COMPRESSED DATA):

DDname/Purpose ===> ***EBAND / COMPRESSED DATA***

7. The allocation information (Required):

Allocation ===> Required

The required datasets must be allocated, the optional - can be allocated.

- press PF4 to get the default settings of JCL/REXX statements, or enter the JCL/REXX statements manualy (Fig. 7-10). Use the parameter's list commands (SA/BR/DE) to simplify the processing.

- press PF6 to accept the entered JCL/REXX statements. The following message is displayed:

SEZ0088: Dataset allocation accepted successfully

- if the total number of the datasets is more than one, use PF11/PF12 keys to scroll forward and backward through the dataset list. For example pressing PF12 on the screen (Fig. 7-10) causes the appearance of the next screen (Fig. 7-11), where the JCL/REXX statements for the next dataset (FILEA) have to be entered.

- press PF3 to exit the datasets processing.

An attempt to start the utility without required dataset allocation causes the processing error with the following message:

SEZ0090: JCL requirements not completed

For the utilities which does not require the dataset allocation, there is no PF12 assignment on the ADABAS utility functional screen; for example, ADAREP (Report Generator).

Enter the job processing command for JCL/REXX execution (EX) or generation (GN). For information about job processing commands consult the section *SEZAM Commands.*

```
16:07:21 ----------------- Administrator Startup Menu ------------- 2003-08-14
 Function ===> 2

 _ 1 SEZAM administration
 _ 2 ADABAS maintenance
 _ 3 ADABAS EVENT REPLICATOR maintenance
 _ 4 NATURAL maintenance
 _ 5 Finished objects
 _ 6 Special functions
 _ 7 Authorities









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 7-5: Example of Administrator Startup menu

```
09:33:44 --------- Adabas maintenance / Administrator menu -------- 2009-10-28
 Function ===> 11

 _ 1  ADAACK Check address converter      _ 15 ADAPRI Print selected blocks
 _ 2  ADACDC Changed data capture         _ 16 ADARAI Recovery aid
 _ 3  ADACMP Compress/Decompress          _ 17 ADAREP Report
 _ 4  ADACNV Database conversion          _ 18 ADAREF Reflective database
 _ 5  ADADBS Database services            _ 19 ADARES Restart
 _ 6  ADADCK Check data storage           _ 20 ADASAV Save/Restore
 _ 7  ADADEF Database definition          _ 21 ADASCR Security
 _ 8  ADAFRM Format                       _ 22 ADASEL Select protection data
 _ 9  ADAICK Check index/AC               _ 23 ADAULD Unload
 _ 10 ADAINV Invert                       _ 24 ADAVAL Validate database
 _ 11 ADALOD Loader                       _ 25 ADAWRK Work recovery report
 _ 12 ADAMER ADAM estimation              _ 26 ADAZAP Modify datasets
 _ 13 ADAORD Reorder                      _ 27 ADAZIN Print maintenance
 _ 14 ADAPLP Protection log/WORK print    _ 28 ADA... Any utility




Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 7-6: ADABAS Utilities Menu

```
16:11:43 --------------------- Loader / ADALOD -------------------- 2003-08-14
 Function ===> 1

 _ 1 LOAD   - loading a file into the database
 _ 2 UPDATE  - adding/deleting records to/from an existing file









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 7-7: ADALOD menu

```
16:13:38 ------------------ Loader / ADALOD(LOAD) ----------------- 2003-08-14
 Command ===>

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> ______________________        Job name ===> ______
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> DB001 / MULTI_
   File/Name/Type ===> 2____ / EMPLOYEES_______ / __________
   Asso/Datavolume ===> ______ / ______
   DS/NI/UI/ACrabn ===> __________ / __________ / __________ / __________
   Allocation      ===> _______
   DS/NI/UIsize    ===> 75B_______ / 50B_______ / 15B_______
   MaxDS/NI/UI     ===> __________ / __________ / __________
   Maxisn/Isnsize  ===> 1500______ / 3
   Isn/DSreuse     ===> YES / YES
   Asso/Datapfac   ===> 3_ / 3_
   Sortsize/Dev    ===> 100_______ / 3390                  Nouserabend ===> Y
   Tempsize/Dev    ===> 100_______ / 3390                       Test ===> N
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults          AddOp1      AddOp2            Alloc
```

Figure 7-8: ADALOD (LOAD) Screen

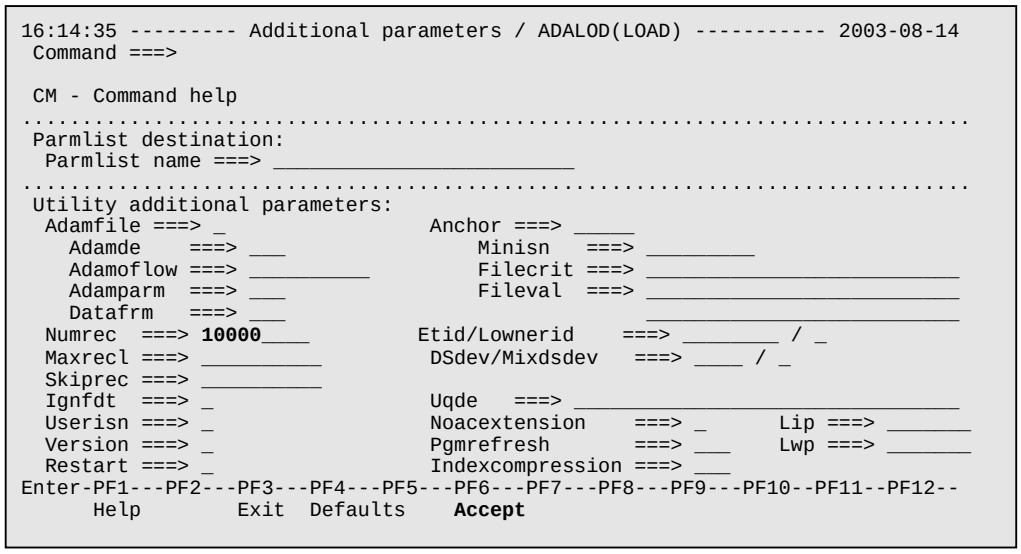

Figure 7-9: ADALOD (LOAD) Additional Parameters Screen

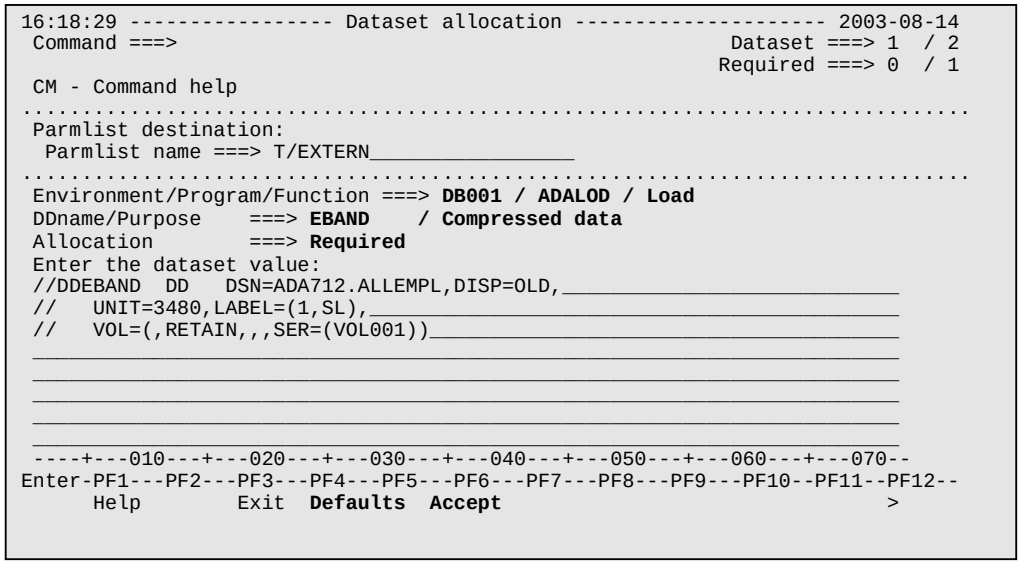

Figure 7-10: ADALOD (LOAD) Dataset Allocation (EBAND) Screen

```
16:21:41 ----------------- Dataset allocation --------------------- 2003-08-14
 Command ===>                                                Dataset ===> 2  / 2
                                                            Required ===> 0  / 1
 CM - Command help
.............................................................................
 Parmlist destination:
  Parmlist name ===> _____________________________
.............................................................................
 Environment/Program/Function ===> DB001 / ADALOD / Load
 DDname/Purpose    ===> FILEA    / Temp overflow
 Required/Optional ===> Optional
 Enter the dataset value:
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____________________________________________________________________________
 ____+---010---+---020---+---030---+---040---+---050---+---060---+---070--
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults  Accept                          <
```

Figure 7-11: ADALOD (LOAD) Dataset Allocation (FILEA) Screen

8. NATURAL Maintenance

The NATURAL maintenance is the facility which allows to generate and execute the jobs for the NATURAL utilities, NATURAL system command and NATURAL user programs. The overview of NATURAL maintenance functions is shown in Figure 8-1.

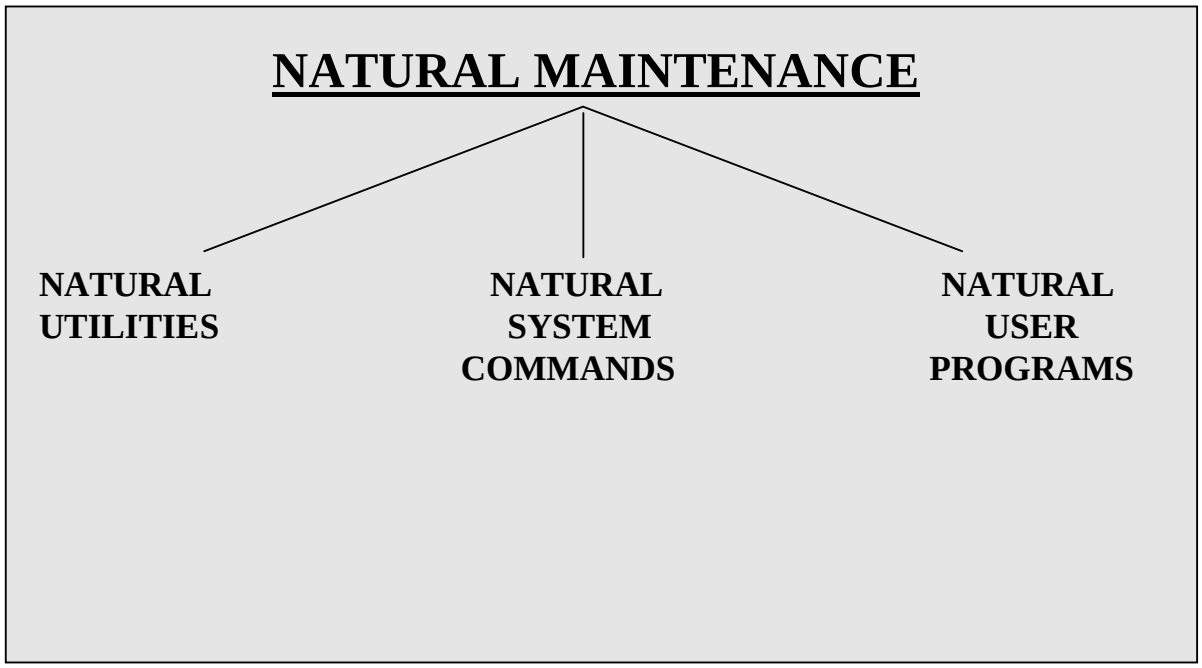

Figure 8-1: Overview of NATURAL Maintenance functions

NATURAL Utilities

The set of NATURAL utilities does not depend on the user type. An overview of the NATURAL utilities is shown in Figures 8-2.

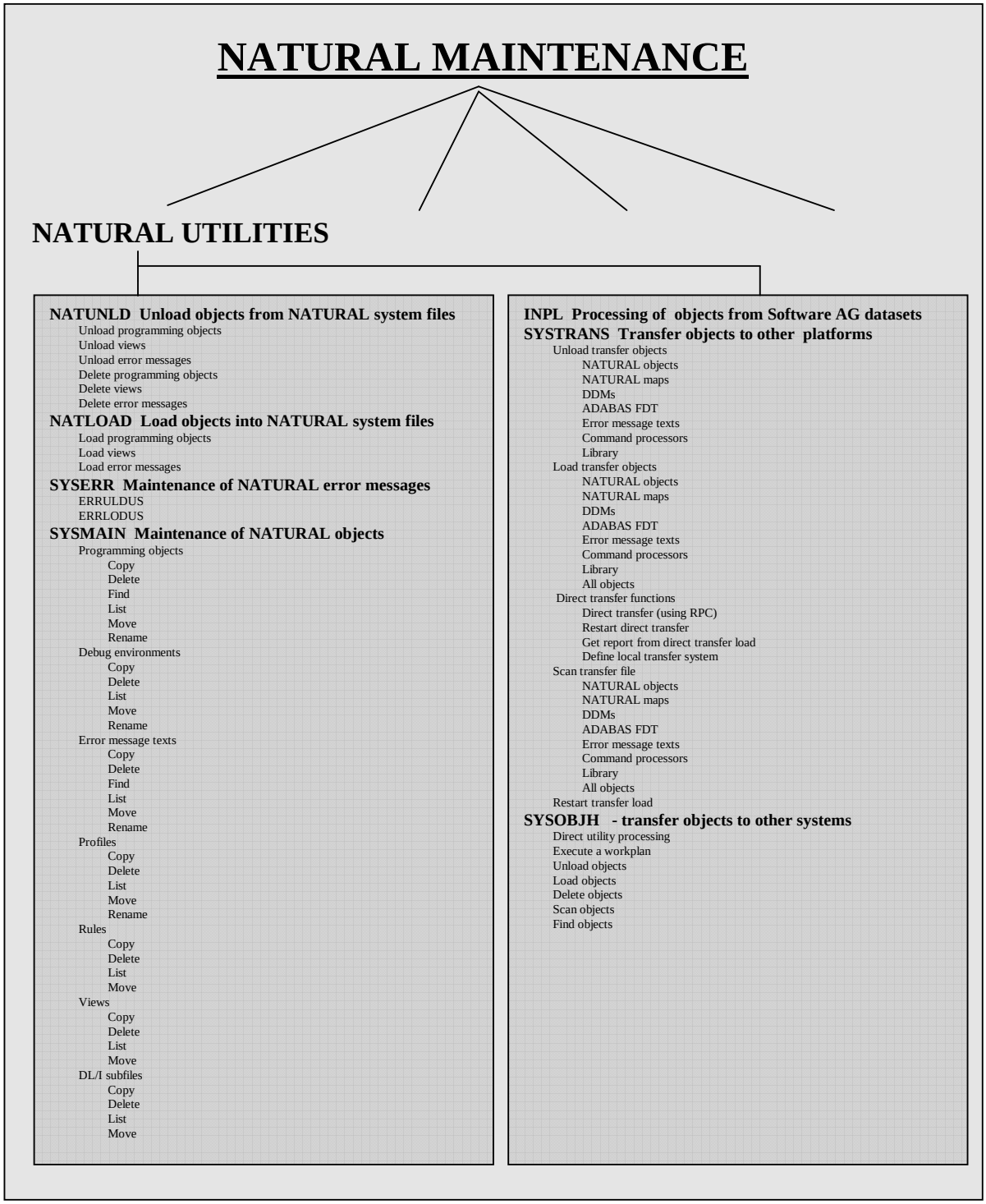

Figure 8-2: Overview of NATURAL Utilities functions

NATURAL utility screens provide the processing of utility parameters together with WHERE, WITH and EXCEPT clauses.

The following program function (PF) keys can be available on NATURAL utility functional screens:

Key	Function
PF1	Help
PF3	Exit to previous screen
PF4	Set default values of NATURAL utility parameters
PF7	Define the source where-clause of NATURAL utility
PF8	Define the target where-clause of NATURAL utility
PF9	Define the with-clause of NATURAL utility
PF11	Define the except-clause of NATURAL utility, or SEZAM add-on for the NATURAL utility
PF12	Allocate required and optional datasets for the NATURAL utility

To execute the NATURAL utility perform the following:

Enter on the startup menu (Fig. 8-3) in the „Function“ field the corresponding number of the „NATURAL maintenance“ function.

Enter on the NATURAL maintenance menu (Fig. 8-4) in the „Function“ field the corresponding number of the „NATURAL utilities“ function.

Select NATURAL utility using cursor, or by entering the corresponding number in the „Function“ field on the NATURAL utilities menu (Fig. 8-5); for example: NATUNLD utility.

Select the function (if any) of the NATURAL utility; for example:
UNLOAD PROGRAMMING OBJECTS (Fig. 8-6).

Enter the required and optional NATURAL utility parameters on the functional screen (Fig. 8-7). The step can be executed with the help of parameter’s list commands (SA/BR/DE). For information about parameter’s list commands consult the section *SEZAM Commands.*

If the need arises enter WHERE, WITH, or EXCEPT clauses.
For example to process the WHERE clause do the following:
- press PF7 to get the WHERE clause functional screen (Fig. 8-8);
- enter the WHERE clause parameters; for example „FNR=7“ (Fig. 8-8).
The WHERE clause parameters can be entered with the help of parameter's list commands (SA/BR/DE);
- press PF6 to accept the entered values. The following message is displayed:

SEZ0092: Additional parameters accepted successfully

- press PF3 to exit the processing.

For the utilities without any clauses the corresponding key assignments (PF7, PF8, PF9, PF11) are missing; for example, ERRULDUS (Unload Messages).

Out of necessity allocate the datasets which are required for some of the NATURAL utilities. For example, the NATUNLD requires the CMWKF01 (Output Dataset).
For information about dataset allocation procedure consult the section *ADABAS Maintenance.*

Enter the job processing command for JCL/REXX execution (EX) or generation (GN). For information about job processing commands consult the section *SEZAM Commands.*

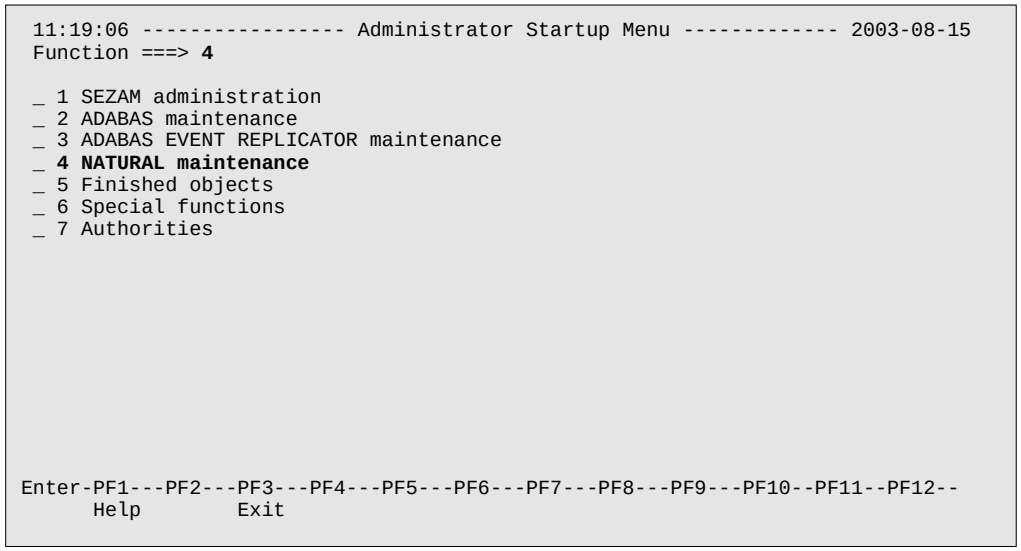

Figure 8-3: Example of Administrator Startup menu

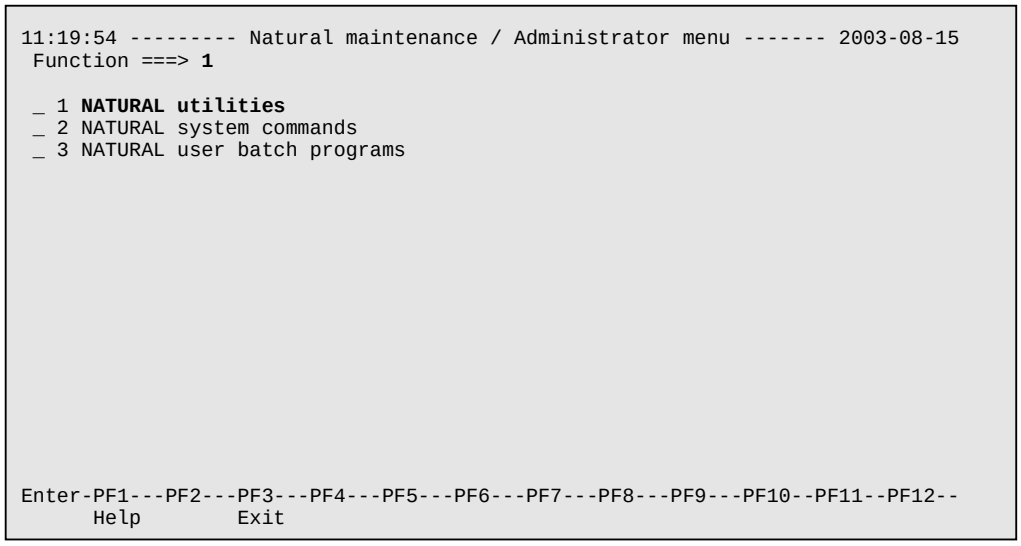

Figure 8-4: Example of NATURAL Maintenance menu

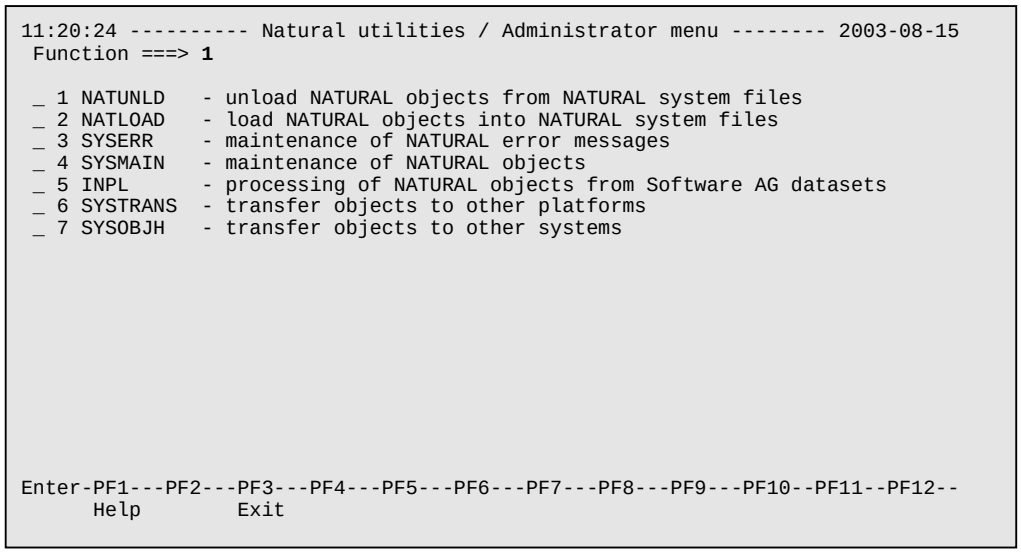

Figure 8-5: Example of NATURAL Utilities menu

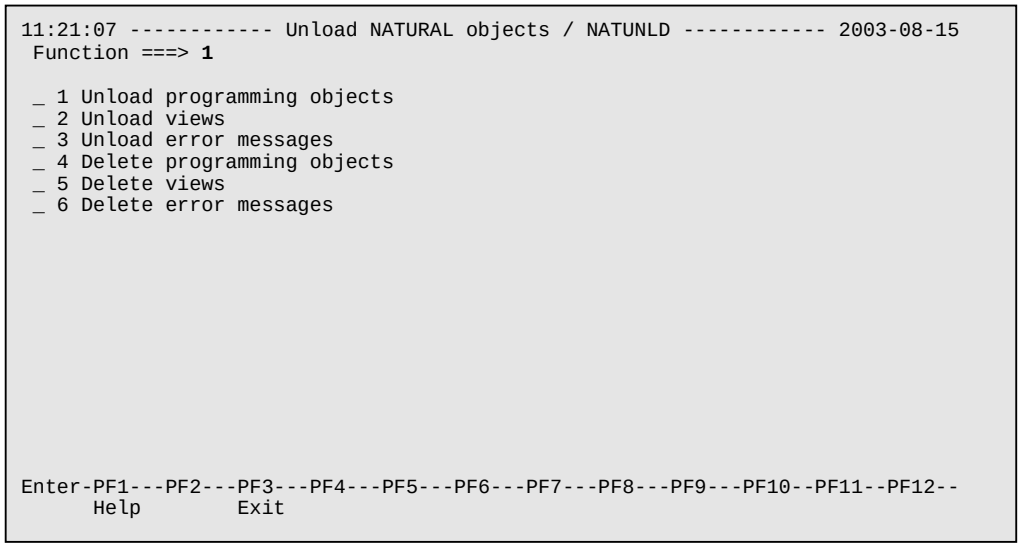

Figure 8-6: Example of NATUNLD menu

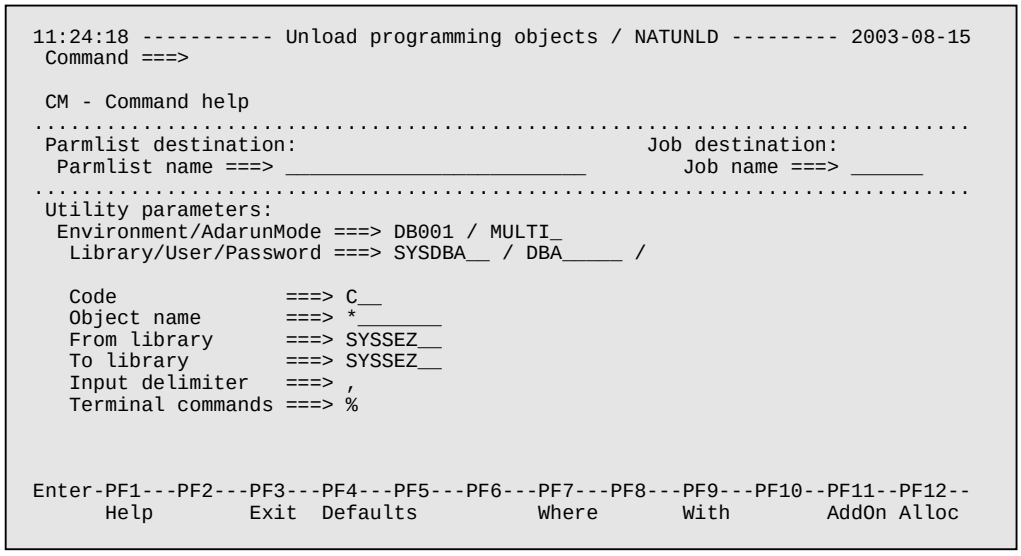

Figure 8-7: NATUNLD (Programming Objects) screen

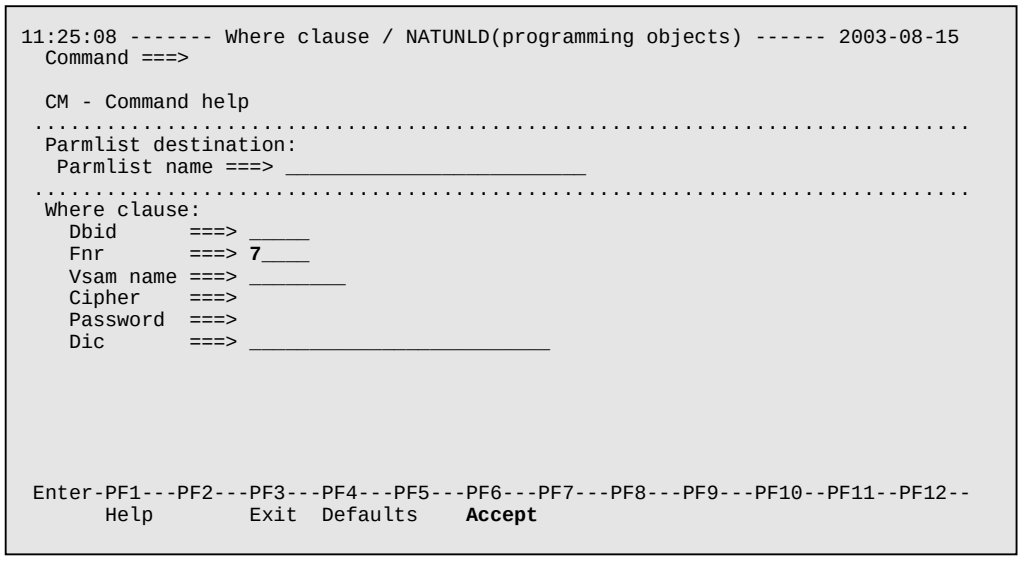

Figure 8-8: NATUNLD Where Clause (Programming Objects) screen

NATURAL System Commands

The set of NATURAL system commands depends on the user type. An overview of NATURAL system commands for the different user types is shown in Figures 8-9.

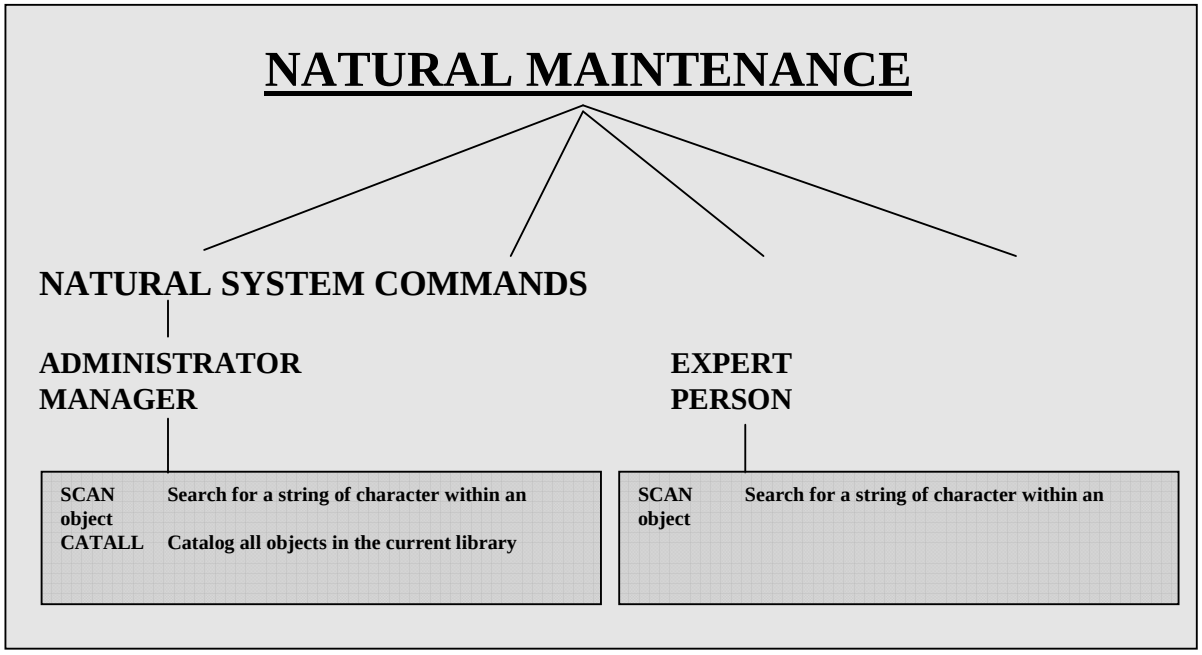

Figure 8-9: Overview of NATURAL System Commands functions

The following program function (PF) keys can be available on NATURAL System Command functional screens:

Key	Function
PF1	Help
PF3	Exit to previous screen
PF4	Set default values of NATURAL system commands
PF7	Define the additional parameters of NATURAL system commands

To execute NATURAL system command perform the following:

Enter on the startup menu (Fig. 8-3) in the „Function“ field the corresponding number of the „NATURAL maintenance“ function.

Enter on the NATURAL maintenance menu (Fig. 8-10) in the „Function“ field the corresponding number of the „NATURAL system commands“ function.

Select NATURAL system command by entering the corresponding number in the „Function“ field on the NATURAL system commands menu, or using the cursor; for example: SCAN System Command (Fig. 8-11).

Enter the required and optional NATURAL system command parameters on the functional screen (Fig. 8-12). The step can be executed with the help of parameter’s list commands (SA/BR/DE). For information about parameter’s list commands consult the section *SEZAM Commands.*

Enter the job processing command for JCL/REXX execution (EX), or generation (GN). For information about JCL processing commands consult the section *SEZAM Commands.*

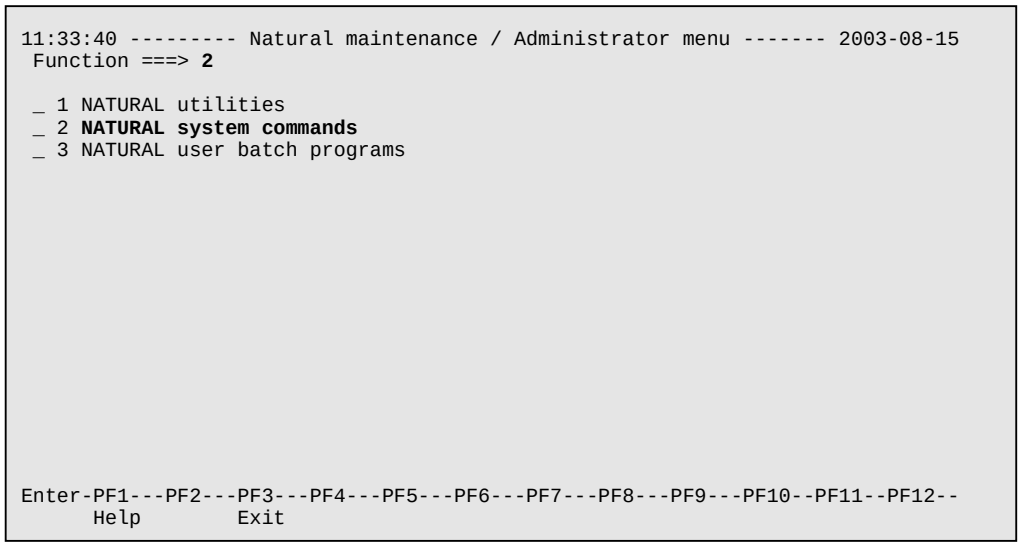

Figure 8-10: Example of NATURAL Maintenance menu

```
11:33:57 ------- Natural system commands / Administrator menu ----- 2003-08-15
 Function ===> 1

 _ 1 SCAN   - search for a string of character within an object
 _ 2 CATALL  - catalog all objects in the current library









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 8-11: Example of NATURAL System Commands menu

```
11:34:23 ------------ Natural system commands / SCAN -------------- 2003-08-15
 Command ===>

 CM - Command help
.....................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> _____________________        Job name ===> ______
.....................................................................
 Utility parameters:
  Environment/AdarunMode ===> DB001 / MULTI_
   Library/User/Password ===> SYSDBA__ / DBA_____ /

   Code              ===> S                                  Natural ===> 23
   Scan value        ===> SP00SMK1_____________________
   Replace value     ===> SP00DIJ1_____________________
   Scanned library   ===> SYSSEZ__
   Scanned objects   ===> *_______
   Object type       ===> *_________
   Absolute scan     ===> Y
   Input delimiter   ===> ,
   Terminal commands ===> %
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults
```

Figure 8-12: SCAN screen

NATURAL User Programs

SEZAM allows to execute every NATURAL program, or system command in batch.

The following program function (PF) keys can be available on the NATURAL User Program functional screen:

Key	Function
PF1	Help
PF3	Exit to previous screen
PF4	Set default values
PF7	Define NATURAL profile parameters
PF12	Allocate required and optional datasets for the NATURAL user program

To execute the NATURAL user program, or NATURAL system command in batch perform the following steps:

Enter on the startup menu (Fig. 8-3) in the „Function“ field the corresponding number of the „NATURAL maintenance“ function.

Enter on the NATURAL maintenance menu (Fig. 8-13) in the „Function“ field the corresponding number of the „NATURAL user batch programs“ function.

Enter on the functional screen parameters together with datasets required for the NATURAL system command (Fig. 8-14), or for the NATURAL user program (Fig. 8-15). The step can be executed with the help of parameter’s list commands (SA/BR/DE). For information about parameter’s list commands consult the section *SEZAM Commands.*

  SEZAM offers to start the NATURAL user program with default (as defined in the description of the SEZAM environment), or with the user defined NATURAL profile parameters.

  To execute user program with default profile parameters, enter „A“ (Automatic) in the „Profile generation“ field (Fig. 8-15).

  To start the program with the user defined profile parameters perform the following:

  - enter „M“ (Manual) in the „Profile generation“ field (Fig. 8-16);

  - press PF7 key to get the NATURAL profile parameters screen (Fig. 8-17);

  - enter NATURAL profile parameters (Fig. 8-17);

- press PF6 to accept the entered values. The following message is displayed:

SEZ0092: Additional parameters accepted successfully

- press PF3 to exit the NATURAL profile parameters processing.

Enter the job processing command for JCL/REXX execution (EX), or generation (GN). For information about job processing commands consult the section *SEZAM Commands.*

Out of necessity allocate the datasets which are required for NATURAL user program. For information about dataset allocation procedure consult the section *ADABAS Maintenance*.

```
11:39:44 --------- Natural maintenance / Administrator menu ------- 2003-08-15
 Function ===> 3

 _ 1 NATURAL utilities
 _ 2 NATURAL system commands
 _ 3 NATURAL user batch programs









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 8-13: Example of NATURAL Maintenance menu

```
 11:41:56 ------------- Natural user batch programs ---------------- 2003-08-15
 Command ===>

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> PRDXXX LOAD_____________       Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> F13000____ / MULTI_                  .........
   Library/User/Password ===> SYSDICBE / ________ /                . DD name
                                                                   . CMWKF01_
   Programm/Command   ===> MENU_____________________________      . ________
   Parameters         ===> LOAD OBJECTTYPE ALL,REPLACE=Y,ADA=N_____ . ________
                           ____________________________________________ . ________
                           ____________________________________________ . ________
                           ____________________________________________ . ________
                           ____________________________________________ . ________
   Profile generation ===> A                                       . ________
   Input delimiter    ===> ,                                       .........
   Terminal commands  ===> %
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults          Profile                      Alloc
```

Figure 8-14: NATURAL User Batch Program screen (PREDICT LOAD utility)

```
11:45:13 ------------- Natural user batch programs ---------------- 2003-08-15
 Command ===>

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> F11177_____________________       Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> F11177____ / MULTI_                  .........
   Library/User/Password ===> KSM_____ / KSM_____ /          *     . DD name
                                                                   . CMWKF01_
   Programm/Command   ===> TEST0001_____________________________  . ________
   Parameters         ===> PARM1,PARM2,%_____________________________ . ________
                           PARM3_____________________________________ . ________
                           ____________________________________________ . ________
                           ____________________________________________ . ________
                           ____________________________________________ . ________
   Profile generation ===> A                                       . ________
   Input delimiter    ===> ,                                       .........
   Terminal commands  ===> %
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults          Profile                      Alloc
```

Figure 8-15: NATURAL User Batch Program screen (with default profile parameters)

```
11:45:13 ------------- Natural user batch programs ---------------- 2003-08-15
 Command ===>

 CM - Command help
.........................................................................
 Parmlist destination:                          Job destination:
  Parmlist name ===> F11177_____________________     Job name ===> DUMMY_
.........................................................................
 Utility parameters:
  Environment/AdarunMode ===> F11177____ / MULTI_                  ..........
   Library/User/Password ===> KSM_____ / KSM_____ /          *      . DD name
                                                                    . CMWKF01_
   Programm/Command   ===> TEST0001_____________________________    . _________
   Parameters         ===> PARM1,PARM2,%_____________________________ . _________
                           PARM3_____________________________________ . _________
                           __________________________________________ . _________
                           __________________________________________ . _________
                           __________________________________________ . _________
   Profile generation ===> M                                        . _________
   Input delimiter    ===> ,                                        ..........
   Terminal commands  ===> %
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults          Profile                      Alloc
```

Figure 8-16: NATURAL User Batch Program screen (with user defined profile parameters)

```
17:08:32 --------------- Natural profile parameters --------------- 2001-06-28
 Command ===>

 CM - Command help
.........................................................................
 Parmlist destination:
  Parmlist name ===> ____________________________
.........................................................................
 Environment ===> F11177

 Enter profile parameters:
 // PARM='IM=D,INTENS=1'_____________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________
 ___________________________________________________________________________

 ----+---010---+---020---+---030---+---040---+---050---+---060---+---070--
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults    Accept
```

Figure 8-17: NATURAL Profile Parameters screen

9. Finished Objects

This feature operates with already generated and/or saved jobs, or patterns directly. The overview of the Finished Objects functions is shown in Figure 9-1.

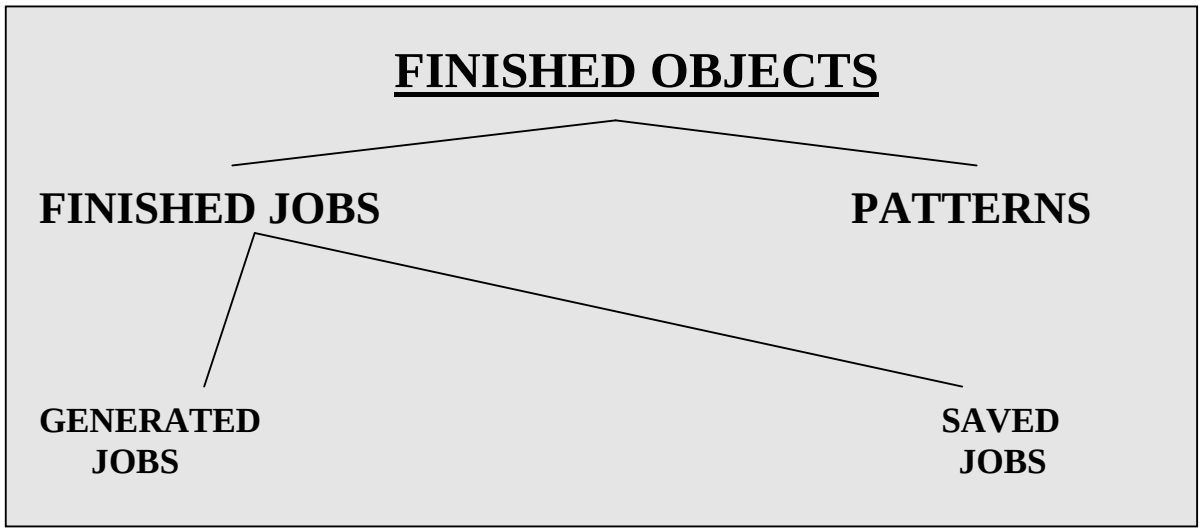

Figure 9-1: Overview of Finished Objects functions

Generated Jobs

The generated job is an ADABAS/NATURAL job which was previously generated from the functional screen with the GN(GENERATE) command.

To execute Generated Jobs facility perform the next steps:

Enter on the startup menu (Fig. 9-2) in the „Function“ field the corresponding number of the „Finished Objects“ function.

Enter on the Finished Objects menu (Fig. 9-3) in the „Function“ field the corresponding number of the „Finished Jobs“ function.

Enter on the Finished Jobs menu (Fig. 9-4) in the „Function“ field the corresponding number of the „Generated Jobs“ function.

Enter in the „Job name“ field the name of NATURAL object with the JCL/REXX to be processed and perform one of the following commands (Fig. 9-5):

ED(EDIT) : browse and modification of the generated job.
LI(LIST) : display the list of one or more generated jobs located in the current library.
SU(SUBMIT) : pass the generated job to the operating system for execution.

```
11:56:03 ----------------- Administrator Startup Menu ------------ 2003-08-15
 Function ===> 5

 _ 1 SEZAM administration
 _ 2 ADABAS maintenance
 _ 3 ADABAS EVENT REPLICATOR maintenance
 _ 4 NATURAL maintenance
 _ 5 Finished objects
 _ 6 Special functions
 _ 7 Authorities









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-2: Example of Administrator Startup menu

```
16:54:33 -------------------- Finished Objects -------------------- 2005-07-19
 Function ===> 1

 _ 1 Jobs
 _ 2 Patterns









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-3: Example of Finished Objects menu

```
11:58:27 -------------------- Finished JOBs ---------------------- 2003-08-15
 Function ===> 1

 _ 1 Generated jobs
 _ 2 Saved jobs









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-4: Example of Finished Jobs menu

```
 11:58:52 ------------ Finished JOBs / Generated JOBs -------------- 2003-08-15
 Command ===> SU

 CM - Command help
.........................................................................
 Job location:
  Library  ===> SEZAM312
  Job name ===> DUMMY_









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-5: Example of Generated Jobs Screen with SU(Submit) command

Saved Jobs

The saved job is an ADABAS/NATURAL job stored in the SEZAM Saved Area.
For information about the SEZAM SAVED JOBS, refer to the *SEZAM Administration Manual.*

To process the Saved Jobs Maintenance take the next steps:

Enter on the startup menu (Fig. 9-2) in the „Function“ field the corresponding number of the „Finished Objects“ function.

Enter on the Finished Jobs menu (Fig. 9-6) in the „Function“ field the corresponding number of the „Saved Jobs“ function.

On the screen with the list of the saved jobs available for the current user (Fig. 9-7) perform one of the following line commands:

BR(BROWSE) : browse the contents of the saved job.
If saved job was created as browse protected the following message will be displayed by the attempt to show its contents:

SEZ0245 Security error: no authority to browse the job

SY(SYSTEM INFO) : display saved job’s system information

SU(SUBMIT) : pass the saved job to the operating system for execution.

XP(EXPORT) : export saved job to the NATURAL text object

The information shown in Figure 9-6 includes the following:

Information	**Description**
DATE	Date of the last modification
JOB NAME	Name of saved job
JOB DESCRIPTION	Description of saved job
OWNER	Name of the job's owner. If the dynamic translation takes place, the translation table of the owner is activated
STATUS-A	Active Status: A - job can be submitted E - job can not be submitted, date/time restrictions are expired
STATUS-D	Disposition: D - job will be deleted after submit K - job will be kept
STATUS-B	Browse/Export Status: Y - job can be browsed/exported N - job can not be browsed/exported
STATUS-R	Restriction Status: R - job is time/people restricted. Job can be processed only by authorized persons and/or only within the defined date/time N - job is unrestricted
STATUS-S	Submit Status: O - job is open, i.e. has not been submitted S - job was submitted
TOTAL RECORDS	Total number of the saved jobs allowed for processing by the current user

```
12:41:27 -------------------- Finished JOBs ---------------------- 2003-08-15
 Function ===> 2

 _ 1 Generated jobs
 _ 2 Saved jobs









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-6: Example of Finished Jobs menu

```
12:42:02 -------------- Finished JOBs / Saved JOBs ---------------- 2003-08-15
 Command ===>                                                SCROLL ===> PAGE

                                                          Library ===> KSM
 CM - Command help                                         Object ===> DUMMY_
.............................................................................

 Co Job name         Owner    Job description               A D B R S Date
 -- ---------------- -------- ----------------------------- - - - - - --------
 BR $A-BS2000/1      KSM                                    A D Y R O 20030320
 __ $A-BS2000/2                                             A D Y R O 20021211
 __ $A-VM            KSM                                    A D Y N O 20030710
 __ $A-VSE                                                  A D Y R O 20021211
 __ $AER-AERULD              ENTIRE DB AERULD...            A K Y R O 20010226
 __ $AER-LOAD                ENTIRE DB AERLOD...            A K Y R O 20010226
 __ $CST431-CSFLOAD          LOAD UPDATED CODE FRAMES       A K Y R O 20010226
 __ $CST431-CSHLOAD          LOAD UPDATED HELP TEXTS        A K Y R O 20021211
 __ $CST431-CSMLOAD          LOAD UPDATED MODELS            A K Y R O 20010226
 __ $CST431-CVHELP           CONVERT EXISTING HELP RECORDS A K Y R O 20010226

 Total records ===> 10
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refr                   +
```

Figure 9-7: Example of Saved Jobs Screen

Browse Saved Job

Only the jobs with the Browse/Export status set to 'Y' can be browsed. To browse the saved job execute the following:

Enter BR(BROWSE SAVED JOB) as line command against the selected job in the Saved Jobs Screen (Fig. 9-7).

The contents of the saved job together with some additional information will be shown (Fig. 9-8):

Information	Description
Job	Name of saved job
Desc	Description of the current saved job
Rest	Restriction status of the current saved job
Disp	Disposition of the current saved job
Owner	Name of the saved job's owner
Total	Total number of the strings in the current job

After successfully processing the following message is displayed:

SEZ0175: Job browsed successfully

```
12:43:33 ----------- Saved job maintenance / Browse job ----------- 2003-08-15
 Command ===>                                                 SCROLL ===> PAGE

 CM - Command Help
.....................................................................
 Job $A-BS2000/1       Desc                                    Rest R  Disp D
 Total 24                                                      Owner KSM
 1    /.KSMAREP LOGON
 2    /REMARK SEZ312:BS2000-1-ADAREP(Report)
 3    /REMARK SEZENV=BS2000-1
 4    /ASSIGN-SYSDTA *SYSCMD
 5    /ASSIGN-SYSLST LI.KSMAREP.DB069.ADAREP.SYSLST
 6    /FILE $RZ.ADA621.MOD        ,LINK=DDLIB
 7    /FILE $RZ.ADA69.ASSO        ,LINK=DDASSOR1,SHARUPD=YES
 8    /FILE $RZ.ADA69.DATA        ,LINK=DDDATAR1,SHARUPD=YES
 9    /FILE $RZ.ADA69.WORK        ,LINK=DDWORKR1,SHARUPD=YES
 10   /FILE LI.KSMAREP.DB069.ADAREP.DRUCK    ,LINK=DDDRUCK
 11   /FILE LI.KSMAREP.DB069.ADAREP.PRINT    ,LINK=DDPRINT
 12   /EXEC (ADARUN,$RZ.ADA621.MOD)
 13   ADARUN PROG=ADAREP
      ----+---010---+---020---+---030---+---040---+---050---+---060---+---070--
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit        Restrict          +
```

Figure 9-8: Browse Saved Job Screen

Display System Information

To browse the system information of the saved job execute the following:

Enter SY(DISPLAY SYSTEM INFO) as line command against the saved job in the Saved Jobs Screen (Fig. 9-7), or as direct command from the Browse Saved Job Screen (Fig. 9-8).

The following system information will be displayed (Fig. 9-9):

Information	Description
Job	Name of saved job
Description	Description of the current saved job
Owner	Name of the saved job's owner
Status	Current status of the saved job
Created	Date of creation together with the name of the user who has created the current saved job
Modified	Date of last modification together with the name of the user who has modified the job
Locked	Date of putting the job in the lock status together with the name of the user who has locked the current saved job
Submitted	Date of last submit together with the name of the user who has submitted the job

After successfully execution the following message is displayed:

SEZ0201: Job's sysinfo browsed successfully

```
12:45:25 -------- Saved job maintenance / System information ------ 2003-08-15
 Command ===>

 ? - Help
.....................................................................
 Job         ===> $A-BS2000/1                       Created:
 Description ===>                                     Date ===> 2002-01-28
 Owner       ===>                                     User ===> KSM

 Status:                                            Modified:
   Acive       ===> Active                            Date ===> 2003-03-20
   Disposition ===> Delete                            User ===> KSM
   Locked      ===> Unlocked
   Restriction ===> Restricted                      Locked:
   Submit      ===> Open                              Date ===>
                                                      User ===>

                                                    Submitted:
                                                      Date ===>
                                                      User ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 9-9: System Information Screen

Submit Saved Job

Only the not expired jobs with the Browse/Export status set to 'Y' can be browsed. To submit the saved job to the operating system for execution perform the following:

Enter SU(SUBMIT) as line command against the selected job in the Saved Jobs Screen (Fig. 9-7), or as direct command from the Browse Saved Job Screen (Fig. 9-8).

Confirm submitting of the saved job to the operating system (Fig. 6-11).

After successfully execution the following message is displayed:

SEZ0073: JCL cards submitted to operating system successfully

Export Saved Job

Only the jobs with the Browse/Export status set to 'Y' can be exported from the SEZAM Saved Area to the NATURAL text object. To export the the saved job do the following:

Enter XP(EXPORT) as line command against the selected job in the Saved Jobs Screen (Fig. 9-7).

Define the source and target job names (Fig. 9-10)

Confirm export (Fig. 9-11).

After successfully execution no messages are displayed.

```
13:03:05 ---------- Saved jobs maintenance / Export job ----------- 2003-08-15
 Command ===>

  ? - Help
 ..............................................................................
  Enter saved job to be exported (source):
    Job name    ===> $A-BS2000/1_____


  Enter the target job:
    Job name    ===> DUMMY_









 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
       Help        Exit
```

Figure 9-10: Saved Job Export Screen

```
13:04:07 ---------------- Export job confirmation ----------------- 2003-08-15
 Command ===>

 ? - Help
 ..............................................................................
 Environment BS2000-1    Program ADAREP


 The job processed successfully and job will be overwritten

 Please confirm with Y exporting into KSM(SJDUMMY)
                ===> Y









 Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12-
       Help        Exit
```

Figure 9-11: Saved Job Export Confirmation Screen

Patterns

The pattern is a list of the NATURAL objects, or libraries which is used in the various NATURAL add-ons.

To execute Patterns facility perform the next steps:

Enter on the startup menu (Fig. 9-2) in the „Function“ field the corresponding number of the „Finished Objects“ function.

Enter on the Finished Objects menu (Fig. 9-3) in the „Function“ field the corresponding number of the „Patterns“ function.

Enter in the „Pattern name“ field the name of NATURAL object with the list of NATURAL objects/libraries to be processed and perform one of the following commands (Fig. 9-12):

ED(EDIT) : browse and modification of the generated job.
LI(LIST) : display the list of one or more generated jobs located in the current library.

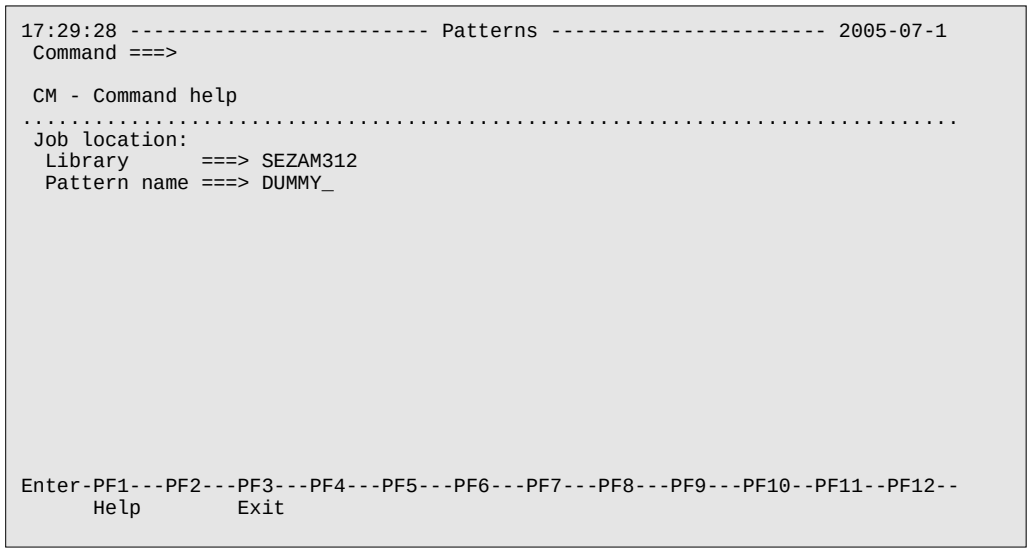

Figure 9-12: Example of Patterns Screen with ED(Edit) command

Dynamic Substituted Statements

The feature allows to define one or more blocks of statements within the job. These statements could be dynamically modified and would be substituted before the JCL/REXX is submitted. The original job keeps unchanged.

Dynamic substituted statements must be defined with the following syntax:

```
SEZDO[=C ommentary]

        dynamic substituted statements

SEZEND

----+---010---+---020---+---030---+---040---+---050---+---060---+---070--
```

The commentary (optionally) will be shown as the help information by the modification of dynamic substituted statements.

The number of dynamic substituted statements must not exceed 10 statements. Empty blocks (number of dynamic substituted statements is 0) are not allowed.

The example of JCL with dynamic substituted statements is shown in Figure 9-13.

```
//ADASOK JOB (SOK),'DB-ADMINISTRATOR',CLASS=A,MSGCLASS=X,REGION=3M,
//   NOTIFY=&SYSUID
//* SEZ312:MVS-ADASAV(Save files)-FILE(34)
//STEP01 EXEC PGM=ADARUN
//STEPLIB DD DSN=LIBS.ADA712.LOAD,DISP=SHR
//DDASSOR1 DD DSN=DATA.ADA001.ASSOR1,DISP=SHR
//DDDATAR1 DD DSN=DATA.ADA001.DATAR1,DISP=SHR
//DDWORKR1 DD DSN=DATA.ADA001.WORKR1,DISP=SHR
//DDSAVE1  DD DSN=DATA.ADA001.SAVE1,
//            DISP=(,KEEP),
//            UNIT=TAPE,VOL=SER=TAPE05
//DDDRUCK DD SYSOUT=*
//DDPRINT DD SYSOUT=*
//DDCARD DD *
ADARUN PROG=ADASAV
ADARUN SVC=247
ADARUN DEVICE=3390
ADARUN DBID=003
ADARUN MODE=MULTI
ADARUN DSF=YES
//DDKARTE DD *
SEZDO=Enter file number
ADASAV SAVE FILES=34
SEZEND
ADASAV UTYPE=EXU
//* END GENERATION
```

Figure 9-13: JCL with dynamic substituted statements

By the job submitting, all statements between the SEZDO and SEZEND labels are shown on the screen (Fig. 9-14). The commentary (if exists) is displayed and can be used as the help information.

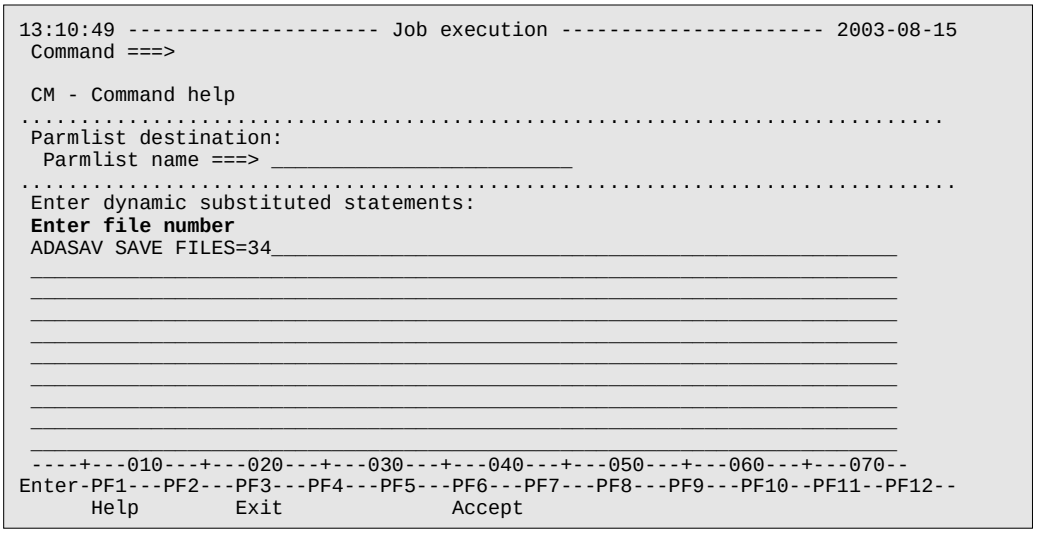

Figure 9-14: Job execution screen

After modification of the dynamic substituted statements and pressing PF6(ACCEPT), the job will be submitted to the operating system for execution.

Date and Time System Variables

SEZAM date and time system variables contain information about the current date and time. They may be referenced at any point within an environment or JCL/REXX.

The example of JCL date and time system variables is shown in Figure 9-15.

```
//KSMFASAV JOB (,,,999),'KSM',CLASS=P,MSGCLASS=X
//* SEZ312:F177-ADASAV(Save files)-FILE(1)
//* SEZENV=F177
/*ROUTE XEQ DAEF
/*JOBPARM SYSAFF=DAEF
/*ROUTE PRINT DAEF
//SEZADA EXEC PGM=ADARUN,REGION=8000K,TIME=1440
//STEPLIB  DD DSN=RZDBA.DB177.NEWLOAD,DISP=SHR
//         DD DSN=RZDBA.DB177.LOAD,DISP=SHR
//DDASSOR1 DD DSN=DB177.SYSF.ASSOR1,DISP=SHR
//DDDATAR1 DD DSN=DB177.SYSF.DATAR1,DISP=SHR
//DDWORKR1 DD DSN=DB177.SYSF.WORKR1,DISP=SHR
//DDSAVE1  DD DSN=SAVE.ADASAVE.D#DATI.T#TIMN7,DISP=(,CATLG)
//DDDRUCK  DD SYSOUT=*
//DDPRINT  DD SYSOUT=*
//DDCARD   DD *
ADARUN PROG=ADASAV
ADARUN SVC=249
ADARUN DEVICE=3390
ADARUN MODE=MULTI
ADARUN DBID=177
//DDKARTE  DD *
ADASAV SAVE FILES=1
ADASAV UTYPE=EXU
ADASAV NOUSERABEND
//* END GENERATION
```

Figure 9-15: JCL with date and time system variables

For more information about SEZAM system variables please refer to *Sezam Administration Manual*.

10. Special Functions

The overview of SEZAM Special Functions is shown in Figure 10-1.

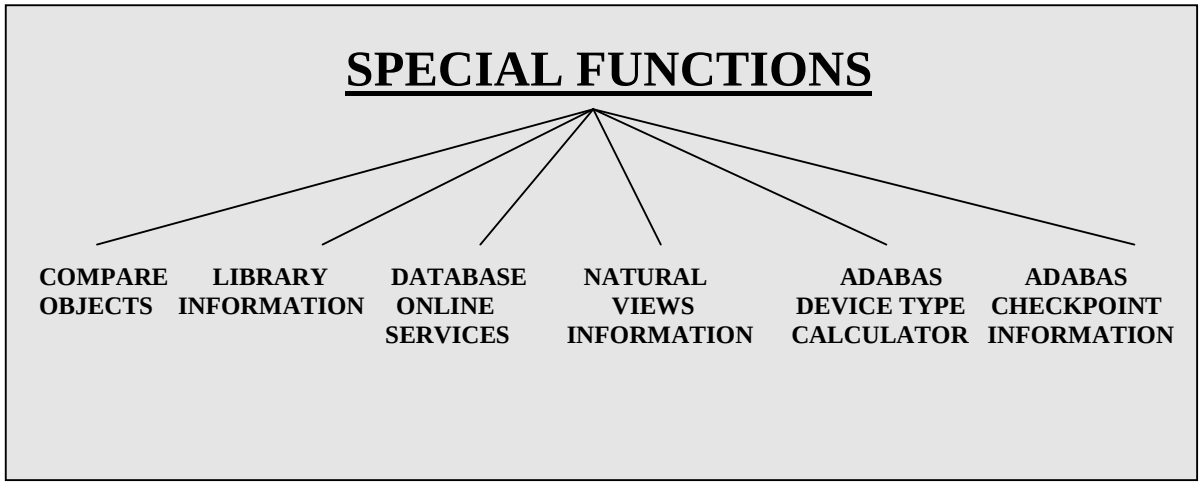

Figure 10-1: Overview of Special Functions

To invoke Special Functions use the SFUN Direct Command, or perform the next steps:

Enter on the startup menu (Fig. 10-2) in the „Function“ field the corresponding number of the „Special Functions“ function.

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding function code.

```
13:16:50 ----------------- Administrator Startup Menu ------------- 2003-08-15
 Function ===> 6

 _ 1 SEZAM administration
 _ 2 ADABAS maintenance
 _ 3 ADABAS EVENT REPLICATOR maintenance
 _ 4 NATURAL maintenance
 _ 5 Finished objects
 _ 6 Special functions
 _ 7 Authorities









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 10-2: Example of Administrator Startup menu

```
16:51:40 -------------------- Special functions ------------------ 2009-10-12
 Function ===>

 _ 1 Compare objects
 _ 2 Library information
 _ 3 Database online services
 _ 4 Natural views information
 _ 5 Device type calculator
 _ 6 Checkpoint information









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 10-3: Example of Special Functions menu

Compare

The SEZAM Compare performs the comparison of two different Natural source objects.

To invoke the Compare function perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „Compare“ function.

To perform the comparison specify the following parameters on the SEZAM Compare screen (Figure 10-4):

- location of the first object (name, library, system file: fnat, fuser, fdic) together with the range of lines being compared
- location of the second object (name, library, system file: fnat, fuser, fdic)
- offset:
  - null - compared the strings with the same sequntial numbers
  - positive - compared the string number (n) of the first object with the string number (n+offset) of the second object
  - negative - compared the string number (n) of the second object with the string number (n+offset) of the first object
- mode of compare:
  - S - compares 'string with string'
  - I - each string of the first object must be in the second object (could take a lot of time)
- output mode:
  - B - blind (only final statistic is displayed)
  - S - screen (not for compare mode 'I')
  - D - NATURAL text object

```
13:38:25 ----------- Sezam special functions / COMPARE ------------ 2003-08-15
 Command ===>

 CM - Command help
.............................................................................
 Parmlist destination:                          Report destination:
  Parmlist name ===> CM$CALL___________________       Report name ===> DUMMY_
.............................................................................
 Compared objects:                              Statistics:
  First object                                   Processed   ===> 119
   Lib/File ===> KSM_____ / U                    Differences ===> 92
   Object   ===> CM$CALLA
   From     ===> 0000
   To       ===> 9999
  Second object
   Lib/File ===> KSM_____ / U
   Object   ===> CM$CALLC
 Settings:
  Offset   ===> 0___
  Mode     ===> S
  Output   ===> B
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh
```

Figure 10-4: Compare screen

Library Information

This feature displays the detailed information about objects located in the NATURAL system, or user library.

To invoke the Library Information function perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „Library Information“ function.

Specify the library name and press ENTER on on the SEZAM Library Information screen (Figure 10-5)

After successfully execution the following message is displayed:

SEZ0374: Library processed completely

```
13:52:40 ------ Sezam special functions / Library information ----- 2003-08-15
 Command ===>

 ? - Command help
.....................................................................
 Enter Natural library to be processed:

   Library  ===> SEZAM312


 Natural user file:                        Natural system file:
   Saved objects                             Saved objects
     Quantity ===> 42                          Quantity ===> 0
     Lines    ===> 3456                        Lines    ===> 0
   Cataloged objects                         Cataloged objects
     Quantity ===> 41                          Quantity ===> 0




Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh
```

Figure 10-5: Library Information Screen

Database Online Services

The SEZAM Database Online Services provides the online information about the databases, files and FDTs.

To invoke the Database Online Services perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „Database Online Services“ function.

Specify the range of the DBIDs (Fig. 10-6). All active databases with DBID in this range will be shown on the Display Databases screen (Fig. 10-7).

Specify the range of the DBIDs (Fig. 10-6). All active databases with DBID in this range will be shown on the Display Databases screen (Fig. 10-7).

Specify any non blank character or use the cursor to select the database and specify the range of the FNRs (Fig. 10-8). All files loaded to the selected database in this range will be shown on the Display Files screen (Fig. 10-9).

Specify any non blank character or use the cursor to select the file and the FDT Information screen will be shown (Fig. 10-10). If the SDT is defined for the selected file, press PF2 to switch to the SDT Information screen (Fig. 10-11).

```
09:42:52 ------- Sezam special functions / Display databases ------ 2009-09-29
 Command ===>

 ? - Help
.....................................................................
 Enter database ID range:

  Starting from ===> 1____
  Ending at     ===> 103__









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults
```

Figure 10-6: Display Databases DBID Range Screen

```
09:42:32 ------- Sezam special functions / Display databases ------ 2009-09-29
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.....................................................................
 S  Dbid   Version  Op.system  Nucleus                   Database ===> 0
 -  -----  -------  ---------  -------------                 Rsp ===> 0
 _      7  8130     Mainframe  Noncluster                    Sub ===> 0
 _      9  8140     Mainframe  Noncluster
 _     10  8140     Mainframe  Noncluster
 _     15  8140     Mainframe  Noncluster
 _     21  8140     Mainframe  Noncluster
 _     27  8140     Mainframe  Noncluster
 _     36  8140     Mainframe  Noncluster
 _     54  7440     Mainframe  Noncluster
 _     63  7420     Mainframe  Noncluster
 _     76  8140     Mainframe  Noncluster

 Total records ===> 13                            Starting from ===> 1
                                                      Ending at ===> 103

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh               +
```

Figure 10-7: Display Databases Screen

```
09:43:30 ------- Sezam special functions / Display databases ------ 2009-09-29
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.....................................................................
 S  Dbid   Version  Op.system  Nucleus                   Database ===> 0
 -  -----  -------  ---------  -------  +--------- Sezam ----------+ ==> 0
 _      7  8130     Mainframe  Nonclus  I                          I ==> 0
 _      9  8140     Mainframe  Nonclus  I Database ===> 10         I
 x     10  8140     Mainframe  Nonclus  I                          I
 _     15  8140     Mainframe  Nonclus  I Enter file range:        I
 _     21  8140     Mainframe  Nonclus  I Starting from ===> 1____ I
 _     27  8140     Mainframe  Nonclus  I Ending at     ===> 100_  I
 _     36  8140     Mainframe  Nonclus  +--------------------------+
 _     54  7440     Mainframe  Noncluster
 _     63  7420     Mainframe  Noncluster
 _     76  8140     Mainframe  Noncluster

 Total records ===> 13                                Starting from ===> 1
                                                          Ending at ===> 103

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +
```

Figure 10-8: Display Databases File Range Screen

```
15:32:16 --------- Sezam special functions / Display files -------- 2003-08-15
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.....................................................................
 S  File   Status                                          Database ===> 10
 -  -----  ------                                             File ===> 0
 _      1  Fil                                                Rsp ===> 0
 _      2  Fil                                                Sub ===> 0
 _      3  Fil
 _      4  Sys
 _      6  Sys
 _      8  Fil
 _      9  Fil
 _     10  Fil
 _     13  Fil
 _     14  Fil


 Total records ===> 45                                Starting from ===> 1
                                                          Ending at ===> 100
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refresh                +
```

Figure 10-9: Display Files Screen

```
15:36:01 ---------- Sezam special functions / Display FDT --------- 2003-08-15
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.............................................................................
 Database/File ===> 10    / 10

 Lev   Name   Leng   Form   Options            Parent of
 ---   ----   ----   ----   ----------------   -------------------------
 1     AA     3      A      NU DE              SUB/SUPERDE
 1     BA     4      A      NU DE              SUB/SUPERDE
 1     BB     8      A      NU MU DE
 1     BC     4      P      NU MU DE
 1     BD     68     A      NU MU
 1     BE     1      A      DE
 1     BF     1      A      DE
 1     BG     8      A      NU DE
 1     BH     10     A      NU DE
 1     BI     8      A      NU

 Total records ===> 52
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help  SDT   Exit                          +
```

Figure 10-10: Display FDT Screen

```
15:36:20 ---------- Sezam special functions / Display SDT --------- 2003-08-15
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.............................................................................
 Database/File ===> 10    / 10

 Type   Name   Leng   Options                  Structure
 ----   ----   ----   ----------------------   -------------------------
 SUPER  S1     7      UQ NU DE                 AA ( 1 - 3 )
                                                BA ( 1 - 4 )









 Total records ===> 1
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help  FDT   Exit
```

Figure 10-11: Display SDT Screen

Natural Views

The SEZAM Natural Views Information delivers the online information about Natural views and FDTs.

To invoke the Natural Views Information perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „Natural Views Information“ function.

Specify parameters of the Natural views to be processed (Fig. 10-12). All Natural DDMs which meet these parameters will be shown on the Display Views screen (Fig. 10-13).

Specify any non blank character or use the cursor to select the view and the FDT Information screen will be shown (Fig. 10-10). If the SDT is defined for the selected file, press PF2 to switch to the SDT Information screen (Fig. 10-11).

```
17:02:38 --------- Sezam special functions / Display views -------- 2009-10-12
 Command ===>

 ? - Help
.....................................................................
 Enter parameters:

  View ===> EMPL*_____________________________
  Dbid ===> 177__
  File ===> _____









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults
```

Figure 10-12: Display Views Parameter Screen

```
17:03:37 --------- Sezam special functions / Display views -------- 2009-10-12
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.....................................................................
 S  Dbid   File   View                                Database ===>
 -  -----  -----  --------------------------------        File ===>
 _  177    1      EMPLOYEES-C                              Rsp ===>
 _  177    1      EMPLOYEES-DB177                          Sub ===>









 Total records ===> 2

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refr
```

Figure 10-13: Display Views Screen

Device Type Calculator

The SEZAM Device Type Calculator provides the online information about the standard characteristics of the device types supported by ADABAS.

To invoke the Device Type Calculator perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „ Device Type Calculator “ function.

Specify or select the device type. The standard values of the device types will be shown on the screen (Fig. 10-12).

Specify the ADABAS data set name and the capacity value to be processed by the calculator.

```
10:35:22 ---------- Sezam special functions / Calculator ---------- 2003-11-26
 Command ===>

 CM - Command help
.............................................................................
 Enter device type:
   Device   ===> 3390 MVS/VM/VSE
 +----+-----------+-------------------------------------------------------+
 I               I            Adabas block sizes / RABN per track          I
 I----+-----------+---------+---------+---------+---------+---------+------I
 I Tr I  Blk/Trk  I  Asso   I  Data   I  Work   I  Sort/  I  Clog   I  Plog/  I
 I Cl +-----+-----+         I         I         I  Temp   I         I  Rlog   I
 I    I FBA I PAM I         I         I         I         I         I         I
 I----+-----+-----+---------+---------+---------+---------+---------+------I
 I 15 I     I     I 2544    I 5064    I 5724    I 8904    I 5064    I 5724    I
 I    I     I     I 18      I 10      I 9       I 6       I 10      I 9       I
 +----+-----+-----+---------+---------+---------+---------+---------+---------+

 Calculate:
   Dataset-- Mbyte---- Cyl------ Trk------ Blk------
   _________ 0________ 0________ 0________ 0________
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Defaults    Select
```

Figure 10-12: Device Type Calculator Screen

Checkpoint Information

The SEZAM Checkpoint Information feature provides the detailed online information about the ADABAS Checkpoints.

To invoke the Checkpoint Information perform the following:

Enter on the Special Functions menu (Fig. 10-3) in the „Function“ field the corresponding number of the „ Checkpoint Information “ function.

The ADABAS checkpoints are shown on the screen (Fig. 10-13).

The detailed information can be processed by ‘BR’ line command.

```
12:54:59 ---------- Sezam special functions / Checkpoints --------- 2004-02-20
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.....................................................................
 Co   Type Name Originator Description
 ---  ---- ---- ---------- --------------------------------------------------
 __   01   SYNC ADANUC     Written by nucleus at start of nucleus session
 __   01   SYNF User/Util. User/utility session OPEN with files used in >>>>>
 __   01   SYNX EXU user   EXU user open
 __   02   SYNV ADANUC     VOLSER entry. Written at volume switch on DD >>>>>
 __   03   SYNF User/Util. Close checkpoint for an EXF user
 __   03   SYNX EXU        Close checkpoint for an EXU user
 __   05   SYNP ADASAV     SAVE file(s)-start of operation
 __   06   SYNP ADASAV     SAVE database-start of operation
 __   07   SYNP ADASAV     RESTORE file(s)-end of operation
 __   08   SYNP ADASAV     RESTPLOG-end of operation


 Total records ===> 93

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refr                  +
```

Figure 10-13: Checkpoint Information Screen

11. Authorization

This function provides the overview of the user's definitions within SEZAM.

To invoke the Authorities function perform the next steps:

Enter on the startup menu (Fig. 11-1) in the „Function“ field the corresponding number of the „Authorities“ function.

On the Authorization screen (Fig. 11-2) one of the following line commands can be processed:

EN	: display environment's description
FU(FUNCTIONS)	: browse the list of the allowed ADABAS/NATURAL utilities and functions
US(USER INFO)	: browse user's definition

```
15:40:29 ----------------- Administrator Startup Menu ------------- 2003-08-15
 Function ===> 7

 _ 1 SEZAM administration
 _ 2 ADABAS maintenance
 _ 3 ADABAS EVENT REPLICATOR maintenance
 _ 4 NATURAL maintenance
 _ 5 Finished objects
 _ 6 Special functions
 _ 7 Authorities









Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit
```

Figure 11-1: Example of Administrator Startup menu

```
15:41:35 ------------------ User authorization -------------------- 2003-08-15
 Command ===>                                                SCROLL ===> PAGE

 CM - Command help
.............................................................................

 User information                   Co  Env.       Description
 ----------------                   --  ---------- -----------------
 Name             ===> KSM          __  A001       daea Application
 Type             ===> A            __  A012       daea Application
 Authorization    ===> Y            __  A014       daea Application
 Created by       ===> KSM          __  A015       daea Application
 Date of creation ===> 1999-04-13   __  A016       daea Application
                                    __  A017       daea Application
                                    __  A018       daea Application
                                    __  A019       daea Application
                                    __  A020       daea Application
                                    __  A026       daea Application

                                    Total records ===> 10

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help        Exit  Refr                  +
```

Figure 11-2: Example of Authorization Screen

Notes

Notes